DOCUMENT RESUME

ED 320 383	EC 231 197

TITLE	Investigation into Measurable Behavioral Change in Behaviorally/Emotionally Handicapped Students as It Relates to the Provision of Instruction in Alternative Behaviors. Final Report.
INSTITUTION	North Carolina State Dept. of Public Instruction, Raleigh. Div. for Exceptional Children.
SPONS AGENCY	Department of Education, Washington, DC.
PUB DATE	29 Jan 88
NOTE	142p.; For a related document, see ED 304 868.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Behavior Change; *Behavior Disorders; Behavior Modification; Curriculum Development; Elementary Secondary Education; *Emotional Disturbances; Generalization; *Instructional Effectiveness; Training Methods; Transfer of Training

ABSTRACT

The study examined the effects of instruction in new behavior on behavioral change in behaviorally or emotionally handicapped students by comparing Ifd (intensity, frequency, and duration) behavior scores of students who received special behavioral instruction (N=360) with students not receiving this instruction (N=360). The study also investigated the relationship between Ifd scores of targeted student behaviors and the following: educational setting (self-contained or resource), demographic area, educational level, race, sex, and instructional time required at each of three progress levels (awareness, understanding, and application). The study found that for the two 3-month cycles in which data were collected, systematic behavioral instruction provided in addition to behavior management was significantly (at the .001 level) more effective in producing behavioral growth than was behavior management alone and also more effective in achieving transfer. No significant differences in the effects of behavioral instruction were found associated with race, sex, educational level, or educational setting). Other results included statements by most service providers that instructional time was at least equalled by time saved. An appendix contains an excerpt from "Teaching New Behaviors" which includes introductory information, a glossary, and seven sample lesson plans. Other appendixes include the Ifd scale, data collection forms, and project information. Contains 14 references. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED320383

Investigation into Measurable Behavioral Change in Behaviorally/Emotionally Handicapped Students As It Relates to the Provision of Instruction in Alternative Behaviors

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Director: Mr. E. Lowell Harris
Coordinator: Dr. Mary E. Huneycutt

FINAL REPORT

North Carolina State Department of Public Instruction
Division for Exceptional Children
and
U. S. Department of Education
SEA/Federal Evaluation and Studies Program
January 29, 1988

EC 231197

BEST COPY AVAILABLE

TABLE OF CONTENTS PAGE

Introduction 1
  Conceptual Framework 1
  Issues Addressed in the Study. 2
  Importance of Findings 3
  References 4

Procedures 6
  Review and Revision of *Guide to Curriculum Development* 6
  Code Development 6
  Data Collection Form Development 6
  Selection of Participants. 6
  Experimental Group Training. 7
  Data Collector Selections and Training (Control Group) 9
  Data Collector Training (Experimental Group) 9
  Initial Data Collection Cycles I and II (Control Group). 10
  Implementation of Instruction in New Behaviors 12
  Final Data Collection Cycles I and II. 14
  Payment of Participants. 14
  Computer Programming 14
  Data Entry 15
  Ifd Scale. 15

Data Analysis. 16
  Instrumentation. 16
  Special Considerations 17
    Ifd Scoring 17
    Special Categories. 17
    Demographic Areas 17
  References 18

Findings 19
  Comparison of Behavioral Growth Across the Experimental and Control Groups. 19
  Comparison of Behavioral Growth for Control and Experimental Groups by Student
      Sex 22
      Race. 23
      Educational Setting 23
      Educational Level 24
      Behavior Intensity. 25

  Comparison of Behavioral Growth Within the Experimental Group by Student
      Sex 28
      Race. 28
      Educational Setting 28
      Educational Level 28
      Behavior Intensity. 29

Comparison of Behavioral Growth Within the Control Group by Student
Sex 31
Race. 31
Educational Setting 32
Educational Level 32

Transfer of Appropriate Behavior 34
Behavior Change for Frequently Identified Problem Behaviors. . . . 35
Transfer for Frequently Identified Behaviors 36
Barriers to Instruction. 38
Instructional Time 39

Discussion 41
Summary of Findings Through Data Analysis. 41
Other Issues Examined. 42
Instructional Time. 42
Instructional Barriers. 42
Resistance to Instruction 42
Home Influence. 42

Summary Statement. 43

Implications 44
Limitations 44
Implications for Further Implementation 44
Implications for Further Research 44
Dissemination 45
Use of Findings 45
Side Effects. 45

Appendices
Appendix A Teaching New Behaviors: Guide
Appendix B Ifd Scale
Appendix C Data Collection Form (Experimental Group)
Appendix D Data Collection Narrative Form (Control Group)
Appendix E Data Collection Submitting Form (Control Group)
Appendix F Coded Behaviors
Appendix G Contracts
  Data Programmer
  Data Collector
  Participants
    Control
    Experimental
  Guide Revisors
  Trainers
Appendix H Key Personnel
Appendix I Timelines
Appendix J Budget
Appendix K Behavioral Component of IEP-Computer Format

LIST OF FIGURES

LIST OF FIGURES

Figure		Page
1	Behavioral Growth Comparison Across Experimental and Control Groups.	19
2	Comparisons for Controlling Anger	21
3	Comparisons for Appropriate Behavior Associated with Frustration/Anxiety/Stress.	21
4	Comparisons for Control of Disruptive Behavior.	21
5	Comparisons for Staying On Task	21
6	Average Instructional Time.	40

LIST OF TABLES

LIST OF TABLES

Table Page

1 Representation of Population Studied 19

2 Comparison of Statistical Difference in Behavioral Change Across the Experimental and Control Groups. . . . 27

3 Comparison of Statistical Differences in Behavioral Change Within the Experimental Group for the Variables Race, Sex, Education Level, Education Setting and Behavior Intensity 30

4 Comparison of Statistical Differences in Behavioral Change Within the Control Group for the Variable Race, Sex, Education Level, Education Setting and Behavior Intensity 33

5 Transfer of Behavior for Specific Intensity Levels Across the Control and Experimental Groups 34

6 Transfer for Frequently Identified Behaviors 36

INTRODUCTION

INTRODUCTION

Conceptual Framework

Programs designed to assist handicapped children in developing appropriate social behaviors have been recognized as an important, yet often ignored, component of the individualized education program (Cartledge and Milburn, 1978; Stephens, 1978; Bryan & Bryan, 1979). For the handicapped child, the lack of appropriate behavioral skills is well-documented (Bryan & Bryan, 1979; Gardner, 1978). The importance of programs designed to increase an individual's repertoire of appropriate behavior is presented in this statement:

> Lack of social skills appears to generate social failure. Poor competency as a child may set the stage for inappropriate interpersonal functioning as an adult, accentuating the potential for psychiatric disorder (Bornstein, Bellack & Hersen, 1977, p. 185).

Not unlike the State of North Carolina, many states include references to social and/or behavioral skills deficits in the definitions for specific handicapping conditions (Young, K., Morgan D., and West, 1981). By virtue of P. L. 94-142, this is true of the definitions for the Emotionally Handicapped.

Behavioral interventions are often reactive in nature. They are used to respond to isolated inappropriate behaviors instead of teaching social skills. Howell (1985) notes a general confusion between controlling social behavior and teaching social behavior. Teachers often seem to place more importance on decreasing behaviors which threaten classroom control than on building behaviors which might be expected to generalize beyond the classroom.

Recent efforts have been made to address the behavioral needs of emotionally handicapped students. These include programs developed for unassertive children (Bornstein, Bellack & Hersen, 1977); withdrawn, chronic mental patients (Hersen & Bellack, 1976); delinquent youth (Stephens, 1973); preschool children (Keller & Carlson, 1974); children who are social isolates (Gottman, Gonso, & Schuler, 1976; Oden & Asher, 1977; Cooke & Appolloni, 1972; Hops, Fleischman, Guild, Paine, Walker & Greenwood, 1978) and handicapped children with social skills deficits (Young, Morgan, West, 1981). Such packaged programs and social skills curricula have failed to address the needs of North Carolina's Behaviorally-Emotionally Handicapped (B-EH) students and their service providers.

The training and observation experiences of the North Carolina State Department of Public Instruction personnel and the university personnel comprising a Task Force on Behaviorally-Emotionally Handicapped Curriculum Development lead them to believe that many B-EH service providers, though often highly skilled managers of behavior and skilled instructors of math, reading, science, etc., simply do not know how or what to teach in order to meet the behavioral growth needs of B-EH students. At national and State conferences, service providers frequently express their frustration in not knowing how to produce behavioral independence in B-EH students.

A review of currently available social skills training packages, conducted by the North Carolina Department of Public Instruction, Program Development Services Division, yielded no product which adequately addresses the needs of North Carolina's service providers in teaching new behaviors. The commercially available materials reviewed were limited in at least one of the following ways:

- they failed to address specific behaviors which were of concern to teachers;
- they failed to address the instructional levels demonstrated by the students;
- they failed to provide a tool for measuring student progress;
- they dealt with a restricted range of behaviors; or
- they addressed behavior learning as a single-level activity

In response to the need to focus on appropriate behavior skills development for B-EH students, the North Carolina Division for Exceptional Children, Program Development Services Section, developed a Guide to Curriculum Development in Teaching New Behaviors. The guide was piloted in five North Carolina B-EH classrooms.

For the following reasons the pilot effort focused on providing guidance for curriculum development, rather than providing a curriculum guide:

- A ready-made curriculum guide may fail to address some of the specific behaviors a teacher may wish to address.
- Teachers may be more likely to "buy into" the concept of new behavior instruction if they play a role in developing the curriculum.
- There is little likelihood of identifying and meeting individual needs through a ready-made behavior curriculum.

The Guide to Curriculum Development in Teaching New Behaviors, was designed to help teachers identify and address, in a proactive manner, the behaviors which were of greatest concern to them. Each of the five service providers who piloted the instruction was positively impressed with the outcomes.

Issues Addressed in the Study

This study was designed to:

- Investigate the effects of instruction in new behavior on behavioral change of B-EH students by comparing Ifd scores (intensity, frequency and duration) of students who received special behavioral instruction with students who did not receive this instruction

- Investigate the relationship between Ifd scores of targeted student behaviors and the following variables:
  - educational setting (self-contained or resource)
  - demographic area
  - educational level
  - race
  - sex
  - instructional time required at each of three (3) progress levels (awareness, understanding and application)

Importance of Findings

The contribution made through reporting the findings of this project responds to the needs of service providers nationwide as well as in North Carolina. Stowitschek (1986) reports that there is little validation of the impact of materials/activities used when dealing with specific behaviors of B-EH students. Limited data exist regarding teaching activities, educational setting, and generalization. Additionally, of the limited material that does exist, 66% did not undergo field-test validation (Stowitschek, 1986). Consequently, the results of this study will add greatly to this area of need.

Data generated by this investigation offer information to the State Department of Public Instruction, DEC personnel, and direct service providers regarding the impact of special instruction in behavior on the behaviors of B-EH students in a variety of settings. This information can influence the future direction of B-EH programs and teacher education programs in North Carolina and in other states.

Further, the results of this study may be used by State level and local level personnel to make "educated" decisions regarding the components of effective education services to the emotionally handicapped population.

The materials produced in preparation for this study and revised through funding for this study may be used to train personnel to teach new behaviors, target behaviors for instruction, identify initial levels of instruction, predict behavioral change and measure behavioral change.

Note: The review of the literature which appears on pp.1 and 2 of this section was provided for use in the initial proposal and this report, by Dr. Mary Lynne Calhoun, University of North Carolina at Charlotte.

REFERENCES

Bornstein, M. R., Bellack, A. S., & Hersen, M. Social Skills Training for Unassertive Children: A Multiple Baseline Analysis. Journal of Applied Behavior Analysis, 1977.

Bryan, J. H., & Bryan, T. H. Exceptional Children. Sherman Oaks, Cal,: Alfred Publishing, 1979.

Cartledge, G., & Milburn, J. F. The Case for Teaching Social Skills in the Classroom: A Review. Review of Educational Research, 1978, 1, 133-156.

Cooke, T. P., & Apollini, T. Developing Positive Social-Emotional Behaviors: A Study of Training and Generalization Effects. Journal of Applied Behavior Analysis, 1976, 9, 74-80.

Gardner, W. I. Children with Learning and Behavior Problems: A Behavior Management Approach. (Second ed.) Boston: Allyn and Bacon, 1978.

Gottman, J., Gonso, J., & Schuler, P. Teaching Social Skills to Isolated Children. Journal of Abnormal Child Psychology, 1976, 4, 179-197.

Hersen, M., & Bellack, A. S. Social Skills Training for Chronic Psychiatric Patients: Rationale, Research Findings, and Future Directions. Comprehensive Psychiatry, 1976, 17, 559-580.

Hops, H., Fleischman, E. H., Guild, J. J., Paine, S. C., Walker, H. M., & Greenwood, C. R. PEERS: Procedures for Establishing Skills, Eugene, Ore.: Center at Oregon for Research in the Behavioral Education of the Handicapped, 1978.

Howell, K. W. (1985). A Task-Analytic Approach to Social Behavior. Remedial and Special Education, 6, 24-30.

Keller, M. F., & Carlson, P. M. The Use of Symbolic Modeling to Promote Social Skills in Pre-School Children with Low Levels of Social Responsiveness. Child Development, 1974, 45, 912-919.

Oden, S., & Asher, S. R. Coaching Children in Social Skills for Friendship Making. Child Development, 1977, 48, 495-506.

Stephens, T. Social Skills in the Classroom. Columbus, Ohio: Cedars Press, 1978.

Stowitschek, J. J. (1986). Social Skills Training Materials for Youth: Profiles and Suggestions for Selection. Unpublished manuscript.

Young, Morgan and West Training Professionals to Teach Social Skills to Handicapped Children and Youth (an unpublished paper), p. 2.

PROCEDURES

PROCEDURES

The fulfillment of the objectives and intent of this study required attention to materials preparation, participant selection, training activities, implementation of instruction in new behaviors, data collection and data analysis.

Review and Revision of the Guide to Curriculum Development

Through contracted services of university personnel and the Curriculum Task Force, the previously piloted Guide to Curriculum Development in Teaching New Behaviors was reviewed and revised.

Revisions were made in accordance with recommendations received from the individuals using the document in the five (5) pilot sites. The final product (see Appendix A) was used in experimental group training and in the implementation of instruction in new behaviors in experimental centers.

Code Development

The coordinator of the study coded each site by experimental or control group, educational level, urban, surburban or rural area and self-contained or resource room delivery style. Service providers in the experimental group were given their codes to use on all data collection forms and contracted collectors were given the codes to use on the data collection forms for the control group. Codes were established for each student, race of the student, sex of the student, level of function (awareness, understanding, application and transfer) and problem behavior for use by service providers in the experimental group. Codes for race, sex and problem behavior were used by the control group data collectors.

Data Collection Form Development

One data collection form (see Appendix C) was developed for the purpose of collecting data from the experimental group.

Two forms were used by data collectors for the control group. The first form (see Appendix D) was used to gather data during an interview and the second (see Appendix E) was used to submit the data to the coordinator of the study.

Selection of Participants

The names of eighty-seven North Carolina Local School Administrative Units (LSAUs) which served twenty or more B-EH students on December 1 of 1985 were placed into a basket. As each LSAU was drawn, the Exceptional Children Program Administrator was contacted to obtain agreement to participate in the study and to identify the number of self-contained and resource rooms serving seven or more B-EH students in urban, suburban or rural areas in elementary, middle or secondary schools.

The names of service providers were placed alternately into a chart of experimental and control slots.

Example: Control Group Chart

Level	Delivery	Demographic Area			Total
		Urban	Suburban	Rural	
Elementary Programs	Self-contained	2 ctrs.	2 ctrs.	2 ctrs.	6
	Resource Room	2 ctrs.	2 ctrs.	2 ctrs.	6
Middle Programs	Self-contained	2 ctrs.	2 ctrs.	2 ctrs.	6
	Resource Room	2 ctrs.	2 ctrs.	2 ctrs.	6
Secondary Programs	Self contained	2 ctrs.	2 ctrs.	2 ctrs.	6
	Resource Room	2 ctrs.	2 ctrs.	2 ctrs.	6
Total		12	12	12	36

Fifty-three (26 control and 27 experimental) of the seventy-two slots were filled by random selection. Fourteen hard-to-fill slots (i.e., rural self-contained middle school centers and rural resource secondary school centers) were filled as Exceptional Children Program Administrators responded to Special-Net messages and telephone calls made by the coordinator of the study.

Experimental Group Training

Schedules for training and locations for training were determined after the experimental center locations had been identified. In order to reduce participant travel, the training was provided at three locations.

University Special Education instructors, the coordinator of the study and a videotape presentation (developed prior to the initiation of this study) were used in training the experimental group service providers to teach new behaviors. Training sessions of two days in length served 9-14 (depending upon the training location) participants. Trainer contracts for services were developed in accordance with State regulations and pay rates and contained trainer expectations (see Appendix G).

The training provided to the experimental group service providers included the following components:

Day 1 . Conceptual framework for teaching new behavior

.. Demonstration in "managing" reading
.. Observation analysis "managing" reading

. Conceptual framework for addressing behavior as a curriculum issue

.. comparisons to reading and math curricula

  - word recognition, comprehension, oral reading and critical reading parallels to awareness, understanding, application and transfer

- Demonstration of procedures for addressing single behaviors

  - determining target behaviors using Ifd (intensity, frequency, and duration) (see Appendix B)
  - writing objectives
  - writing specific activities (overview)
    - awareness
    - understanding
    - application
  - grouping for instruction vs. individual instruction
  - identifying instructional strategies (overview)
  - identifying teaching activities
  - testing for mastery and transfer

- Concentration on strategies which address each instructional level

  - awareness
  - understanding
  - application
  - transfer

- Using sample lessons (Guide to Developing Curriculum in Teaching New Behavior)

- Service provider participation and practice

  - identifying target behavior (Ifd)
  - writing objectives at awareness, understanding and application levels
  - grouping

- Service provider participation and practice

  - identifying strategies
  - identifying teacher activities
  - making lesson plans
  - measuring for transfer

- Questions and answers/problem solving

- Data Collection and Management

  - Using the school/center code
  - Coding of students/subjects
    - confidentiality
    - personally identifiable information

.. Coding general student/subject data
    ... age
    ... race
    ... sex
.. Coding behavioral data
    ... Ifd
    ... instructional time estimates
    ... specific behavior
.. Submitting data
    ... what (data for all students/subjects)
    ... when (Dec. '86, Apr. '87, Sept. '87, Dec. '87)
    ... to whom (coordinator of the study)

Data Collector Selections and Training (Control Group)

Recommendations for control group on-site data collectors were made by university personnel, and three graduate students in special education were selected by the coordinator of the study to receive personal services contracts (see Appendix G).

Each data collector was given training in interviewing service providers, gathering narrative information and transposing narrative information onto a coded form (see Appendix E) for submitting data.

Data Collector Training (Experimental Group)

A portion of the experimental group training was dedicated to the collection of data (see Experimental Group Training).

Initial Data Collection Cycles I and II (Control Group)

Data collectors used on-site data collection forms (see Appendix D) during the thirty-minute interviews. The service provider identified a student code for seven B-EH students and described (among other bogus issues) the student's primary behavior problem. Except for the bogus data, the information gathered was transposed into the appropriate codes on the form for data submission (see Appendix B).

Contracted data collectors collected control group data in on-site sessions of approximately thirty minutes per service provider.

Preliminary data collected regarding control students/subjects included:

- School demographic area
- School level
- Service delivery style
- Age
- Race
- Sex
- Target behavior
- Initial Ifd score

Neither the data collectors nor the service providers of the control group knew which students were to serve as subjects or which items in the data were to be analyzed. The data process for the control group required the use of bogus issues and data collection for seven (7) students/subjects. The data for only five (5) randomly selected control students/subjects and only the data associated with behavior were used in the analysis of data.

Initial Data Collection Cycles I and II (Experimental Group)

Experimental group teachers collected their own data on all students as part of the instructional process and submitted the data at the end of each cycle. Data were submitted on coded forms (see Appendix C) they had been trained to use. Although data were submitted on all students, the data for only five (5) randomly selected students/subjects per center were used in the study.

Preliminary data collected regarding experimental students/subjects included:

- School demographic area
- School level

- Service delivery style
- Age
- Race
- Sex
- Target behavior
- Initial (before instruction) Ifd score
- Initial (before instruction) level of function (awareness, understanding and application)

The service providers of the experimental group did not know which students were to serve as subjects or which data were to be analyzed. They were told during training that the data to be analyzed were those which were related to instructional time, problem behaviors and barriers.

Implementation of Instruction in New Behavior

Following training, instruction in new behavior was the function of experimental group service providers. Service providers were not advised to teach new behaviors on any given schedule or for any given time period. The instruction occurred for two (2) three-month cycles. Cycle I lasted from from Jan. '87 through March '87. Cycle II lasted from Sept. '87 to Nov. '87.

Instruction in new behaviors required the service providers in experimental centers to perform the following specific functions:

- Using the Ifd scale, identify a target behavior for each student. Each service provider determined several problem behaviors presented by students and scored each behavior by applying intensity, frequency, and duration values (see Appendix B) to the behaviors. The behaviors which resulted in the highest value was targeted for instruction. If two or more behaviors had the same high value, for the purposes of this project, the service provider selected one behavior to be addressed by instruction.

- Using target behaviors, determine the curriculum content for the class.

  There was no "set" or pre-established curriculum for teaching new behavior. The curriculum in each service delivery center reflected the target behaviors of each B-EH student who received services there.

- Provide instruction in new behaviors.

  Instruction (individual or group) was provided in accordance with the student's pre-determined target behavior. Sample lesson sequences provided in the Guide to Curriculum Development were used in addressing some behaviors. However, service providers generally developed their own lessons to address the behaviors and used the sample lessons for guidance. Each student was instructed in the targeted behavior at three specific sequential instructional levels - awareness, understanding and application. Each level required the use of a series of lessons and activities. The requirements for mastery at each level of instruction were the following:

  - Completion or mastery at the awareness level required that the student name or list, identify, select, etc., with 95% accuracy, his/her inappropriate behaviors as they related to the target behavior.

  - Completion or mastery at the understanding level required that the student master the awareness level and that he/she compare or contrast, explain, describe, etc. causes, with 95% accuracy, for his/her inappropriate behaviors as they related to the target behavior.

.. Completion of mastery at the application level required that the student master the awareness and understanding levels and select or identify, list name, etc., with 95% accuracy, appropriate alternative behaviors and practice (see note) the alternative behaviors in the special classroom.

Note: In order to master the application level, behaviors with intensity values of 21 and 30 were not to occur in the classroom over a period of at least 30 instructional days*. Behaviors with intensity values of 10 or 12 were not to occur in the special classroom at Ifd scores above 14 for a period of 30 instructional days.

. Transfer of the behavior, an extension of application, was achieved when the levels of awareness, understanding and application were mastered and behaviors of intensity values of 21 and 30 were not to occur at school (including outside the special classroom) for a period of time equivalent to 30* instructional days. Behaviors with intensity values of 10 and 12 were not to occur at Ifd score levels above 14 at school (including outside the special classroom) for a period of time equivalent to 30 instructional days.

Note: Teaching strategies used in the instruction of new behaviors included, but were not limited to, the following:

... innoculation strategies
... biofeedback and relaxation strategies
... roleplay
... self-monitoring and recording
... emotional exercises
... quieting reflex
... debate
... self-talk
... self-concept exercises
... awareness exercises
... reality therapy
... life-space interviewing

. Assess progress.

The service provider assessed student progress at each instructional level as the student indicated he/she had approached mastery of the level of instruction. Assessment findings directed further instruction until transfer of the behavior occurred.

---

*Five and one-half instructional hours equals one instructional day.

Final Data Collection Cycle I and II

Final data (including bogus data) were collected by telephone interview from the control group service providers and were submitted to the coordinator of the study by the data collectors. Data were submitted to the project coordinator for all students by the experimental group service providers. For both the control and experimental group, only the data regarding students/subjects randomly selected were later used in the analysis of data. From the order in which each set of seven (or more in the experimental group) data forms was submitted, the first three and last two data forms were used. When less than seven forms were submitted, additional data were taken from the data submitted for the second service provider in the pair (see Example, Selection of Participants). Student codes from preliminary data were matched with codes for final data in identifying behavioral change for each of the 360 experimental and 360 control students/subjects.

Final data collected regarding experimental students/subjects included:

- Final (after instruction) Ifd score
- Final (after instruction) level of function (awareness, understanding, application and transfer)
- Instructional time (estimate) required for mastery of each level
- Identified barriers of progress

Final data collected regarding control students/subjects included:

- Final Ifd score

Payment of Participants

Service providers in experimental centers implemented instruction and provided data under a contract agreement yielding $100.00 per cycle (see Appendix G).

Service providers in the control centers provided data to the contracted on-site data collector and received $25.00 per cycle for their out-of-school time and willingness to participate (see Appendix G).

Computer Programming

Programs for use in this study were developed by two sources. Services were contracted for the purpose of maintaining the data and producing the mathematical means for behavioral change within subgroups. When the decision was made to use the Mann-Whitney statistical test, a program for data analysis was produced at no cost by a friend of the North Carolina State Department of Public Instruction.

Data Entry

Computer entries were made by State Department of Public Instruction personnel. Initial and final data were entered for Cycles I and II within 30 days of the receipt of the data.

The Ifd Scale

The Ifd Scale (see Appendix B) was used to score service provider identified problem behaviors. The score represented a numerical value assigned to descriptors of a behavior. For the experimental group the "before instruction" scores were subtracted from the "after instruction" scores to determine behavioral change. An increase in the Ifd score represented a regression while a decrease in the score signified behavioral growth for the single behavior.

Control group Ifd scores were collected during the same three-month time period as those for the experimental group, and regression and progress were determined in the same manner used for the experimental group. The control group did not receive the special instruction regarding new behavior.

The differences between initial and final Ifd scores were used to compare behavioral growth or regression within and across the control and experimental groups. The scores were also used in other areas of data analysis (see Findings).

The information which was collected to estimate instructional time in each level of instruction and to determine barriers to behavioral progress were subjective and were made available through the use of the experimental group data collection instrument only.

DATA ANALYSIS

DATA ANALYSIS

Instrumentation

For the comparisons of data across and within treatment and non-treatment groups, some analyses required the determination of median scores, percentages and interquartile ranges.

One of the procedures selected to make comparisons within and across the control and experimental groups for specific variables was the Mann-Whitney or Wilcoxon test (Agresti p. 174).

Each of the assumptions, necessary for the selection of the procedure, hold for this study. They are the following:

- Both samples are random samples from their respective populations
- In addition to independence within each sample, there is mutual independence between the two samples
- Both samples consist of continuous random variables
- The measurement scale is at least ordinal

(Conover p. 224)

In this study, behavioral improvement (an abstract concept) was measured with an ordinal scale (Ifd scale). The behaviorally-emotionally handicapped students/subjects were selected at random within the control and experimental groups and the control and experimental centers were also randomly selected. Students/subjects were not paired for the study, rather, a random stratified sample was used.

The test statistic T was found by first finding S, the sum of the ranks assigned to the observation from population 1. That is,

$$S = \sum_{i=1}^{n} R(x_i)$$

The test statistic was given by $T = S - \frac{n(n+1)}{2}$

Ties were handled in such a way as to make T lowest.
The hypotheses of interest were:

H_0: $F(x) = G(x)$ for all
H_i: $F(x) = G(x)$ for some

Because the intent of the study was to identify when behavioral growth within the experimental group was greater than that within the control group, the decision was made to use a one-tailed test.

The level of significance .001 was chosen to represent a probability of 1 in 1,000 - a highly conservative level. The occurance of a probability of .001 (or below) is termed "significant" in this report.

Special Considerations

Ifd Scoring

It should be noted that in an investigation to determine the variability between teacher-identified Ifd scores (as used for the experimental group) and Ifd scores identified by a third party using teacher narration for the basis of scores (as used for the control group) that on two (initial and final data collection) occasions differences occurred in less than 3% of the cases. The differences were never more than ±1 and averaged +1.4 for 294 cases. For this study, therefore, the mean score for the entire control group could be $\frac{1.7}{360} \times 2$ or .009 higher than indicated by the statistical mean. This difference was not viewed as worthy of inclusion in the calculations.

Special Categories

The percentages of white, non-white, male and female students who were selected at random as students/subjects were consistent with the degree to which the categories are represented in North Carolina's behaviorally-emotionally handicapped population.

Special Category	B-EH % Statewide	B-EH % for Study
male	81	84
female	19	16
white	60	54
non-white	40	46

Demographic Areas

It was the researcher's intention to analyze data across students/subjects of urban, suburban and rural areas. However, due to the method used in the random selection of both control and experimental centers, the demographic areas in which a school facility was located did not indicate that the students attending the facility were from the same demographic areas (urban and rural students were often bused to suburban schools). Analyses, therefore, were not completed for demographic areas.

References

Conover, W. J. *Practical Nonparametric Statistics*,
Wiley, John & Sons, Inc., New York 1977, pp. 224-229.

Agresti, Alan & Agresti, Barbara. *Statistical Methods for the Social Sciences*,
Dellen Publishing Co., San Francisco, CA., 1979, pp. 174-196.

Findings

FINDINGS

In the analysis of data regarding behavioral growth (negative values) and behavioral regression (positive values), it is important to note that the sizes of the experimental group, control group and groups defined by other variables were similar.

Table 1
Representation of Population Studied

	Control Group		Experimental Group	
Variables	# Students	% of Group	# Students	% of Group
Controlled				
Educational Level				
Elementary	120	33.3%	119	33%
Middle	120	33.3%	121	33.6%
Secondary	120	33.3%	120	33.3%
Educational Setting				
Self-Contained	180	50%	180	50%
Resource	180	50%	180	50%
Uncontrolled				
Sex				
Male	300	83%	308	86%
Female	60	17%	52	14%
Race				
White	193	54%	198	55%
Non-white	167	46%	162	45%
Sex and Race				
White Male	157	44%	168	47%
Non-White Male	143	40%	140	39%
White Female	36	10%	30	8%
Non-White Fem.	24	7%	22	6%
Intensity Values				
*I 10	204	57%	175	49%
I 12	108	30%	118	33%
I 21	16	4%	24	8%
I 30	32	9%	43	10%

*Key I-10=interferes with own learning   I-12=interferes with others' learning
I-21=destroys property   I-30=harms self or others

Comparison of Behavioral Growth Across the Experimental and Control Groups

In the analysis of data to determine whether systematic behavioral instruction and behavior management produced significantly (at the .001 level) greater behavioral growth than did management of behavior alone, the data for the two groups of three hundred sixty students were analyzed.

As indicated in Figure 1, the average Ifd Score difference between initial and final scores was *-3.46 and the median difference between initial and final Ifd scores was -4 for the experimental group. For the control group, the average difference between initial and final Ifd scores was .35 and the median difference between the scores was 0.

The likelihood that the difference could occur at random for the two groups, as calculated by the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, and using the median as the indicator of the direction of the difference, the data show that the behavioral growth of the experimental group was significantly greater than the behavioral growth of the control group.

Figure 1
Behavioral Growth Camparisons Across Experimental and Control Groups

Group	# Cases	Avg. Diff. Between Initial Final Ifd Scores	Median Diff. Between Initial Final Ifd Scores	Mann-Whitney Probability of Diff. Calculation
Experimental	360	- 3.46	-4	0
Control	360	-.35	0	

Further analyses presented herein, are used to investigate findings across and within the two groups as they relate to the uncontrolled variables (sex, race and behavioral intensity) and the controlled variables (educational setting and educational level).

---

*Negative values indicate growth. Positive values indicate regression.

Figure 2

Comparisons for Controlling Anger

Intensity of Behavior	Frequency for Control Group	Average Diff. for Control Group	Frequency for Experimental Group	Average Difference for Control Group
I-10	7	-1.29	8	-2.87
I-12	4	+.75	8	-4.62
I-21	3	+6.00	8	-3.87
I-30	8	-1.00	12	-3.25

Figure 3

Comparisons for Appropriate Behavior Associated with Frustration/Anxiety/Stress

Intensity of Behavior	Frequency for Control Group	Average Diff. for Control Group	Frequency for Experimental Group	Average Difference for Control Group
I-10	10	-1.00	15	-3.60
I-12	6	-1.00	7	-3.57
I-21	3	-1.00	3	+.33
I-30	3	-1.00	8	-1.37

Figure 4

Comparisons for Control of Disruptive Behavior

Intensity of Behavior	Frequency for Control Group	Average Diff. for Control Group	Frequency for Experimental Group	Average Difference for Control Group
I-10	8	-.38	9	-2.33
I-12	12	-.75	14	-3.07
I-21	1	NA	0	NA
I-30	2	NA	1	NA

Figure 5

Comparisons for Staying on Task

Intensity of Behavior	Frequency for Control Group	Average Diff. for Control Group	Frequency for Experimental Group	Average Difference for Control Group
I-10	42	-.50	52	-3.27
I-12	9	-1.11	24	-5.37
I-21	0	NA	0	NA
I-30	1	NA	0	NA

Comparison of Behavioral Growth for Control and Experimental Groups by Student Sex

The number of males of the experimental group and the number of males of the control group differed in the representation of the total population for their specific groups by only 3% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was two points higher than the upper end of the range for the control group. This indicated that experimental group males demonstrated slightly more serious behavior problems when initial data were collected than did the males of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the males of the experimental group was -4, and the statistical difference for the males of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, growth measured for males receiving instruction in behavior was significantly greater than for males who did not receive the special instruction.

The number of females of the experimental group and the number of females of the control group differed in the representation of the total population for their specific groups by only 3% (see Table 1). As indicated on Table 2, the median initial Ifd score was the same for both groups, but the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was three points higher for the experimental group and the lower end of the range was one point higher for the experimental group. This indicated that the experimental group females demonstrated slightly more serious behavior problems when initial data were collected than did the females of the control group. When final data were analyzed for these two populations, the difference in initial and Ifd median scores for the females of the experimental group was -4, and the statistical difference for the females of the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially .0001. Using .001 as the level of significance, growth measured for females receiving instruction in behavior was significantly greater than for females who did not receive the special instruction.

Comparison of Behavioral Growth for Control and Experimental Groups by Student Race

The number of white students of the experimental group and the number of white students of the control group differed in the representation of the total population for their specific groups by only 1% (see Table 1). As indicated on Table 2, the median initial Ifd score was the same for both groups. Both the lower and upper ends of the initial interquartile range were one point higher for the experimental group than for the control group. This indicated that experimental group white students demonstrated slightly more serious behavior problems when initial data were collected than did the white students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the white students of the experimental group was -5, and the statistical difference for the white students of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for white students receiving instruction in behavior was significantly greater than for white students who did not receive the special instruction.

The number of non-white students of the experimental group and the number of non-white students of the control group differed in the representation of the total population for their specific groups by only 1% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and both the upper and lower ends of the initial interquartile range were one point higher for the experimental group than for the control group. This indicated that experimental group non-white students demonstrated slightly more serious behavior problems when initial data were collected than did the non-white students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the non-white students of the experimental group was -4, and the statistical difference for the non-white students of the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for white students receiving instruction in behavior was significantly greater than for white students who did not receive the special instruction.

Comparison of Behavioral Growth for Control and Experimental Groups by Student Educational Setting

The number of self-contained students of the experimental group and the number of self-contained students of the control group was the same (see Table 1). As indicated on Table 2, the median initial Ifd Score and the initial interquartile range were the same for both groups. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the self-contained students of the experimental group was -5, and the statistical difference for the self-contained students of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, growth measured for self-contained students receiving instruction in behavior was significantly greater than for self-contained students who did not receive the special instruction.

The number of resource room students of the experimental group and the number of resource room students of the control group was the same. As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was two points higher than the upper end of the range for the control group. This indicated that experimental group resource room students demonstrated slightly more serious behavior problems when initial data were collected than did the resource room students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the resource room students of the experimental group was -4, and the statistical difference for the resource room students of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, growth measured for resource room students receiving instruction in behavior was significantly greater than for resource room students who did not receive the special instruction.

Comparison of Behavioral Growth for Control and Experimental Groups by Educational Level

The number of elementary students of the experimental group and the number of elementary students of the control group differed in the representation of the total population for their specific groups by only 1% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was two points higher than the upper end of the range for the control group. The lower end of the range was one point higher for the experimental group than for the control group. This indicated that experimental group elementary students demonstrated slightly more serious behavior problems when initial data were collected than did the elementary students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the elementary students of the experimental group was -4, and the statistical difference for the elementary students of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for elementary students receiving instruction in behavior was significantly greater than for elementary students who did not receive the special instruction.

The number of middle school students of the experimental group and the number of middle school students of the control group differed in the representation of the total population for their specific groups by only 1% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was shorter for the experimental group than for the control group. The upper end of the range was one point lower than the upper end of the range for the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the middle school students of the experimental group was -6, and the statistical difference for the middle school students of the control group was -1. The probability that the observed difference could occur at random for the two groups as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for middle school students receiving instruction in behavior was significantly greater than for middle school students who did not receive the special instruction.

The number of secondary level students of the experimental group and the number of secondary students of the control group was the same (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was two points higher than the upper end of the range for the control group. This indicated that experimental group secondary level students demonstrated slightly more serious behavior problems when initial data were collected than did the secondary level students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the secondary level students of the control group was -3. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for for secondary level students receiving instruction in behavior was significantly greater than for secondary level students who did not receive the special instruction.

Comparison of Behavioral Growth for Control and Experimental Groups by Student Behavior Intensity

The number of students with *I-10 behaviors of the experimental group and the number of students with I-10 behaviors of the control group differed in the representation of the total population for their specific groups by only 8% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was shorter for the experimental group than for the control group. The lower end of the range was one point lower than the lower end of the range for the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the students with I-10 behaviors of the experimental group was -4, and the statistical difference for the students with I-10 behaviors of the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for students with I-10 behaviors receiving instruction in behavior was significantly greater than for students with I-10 behaviors who did not receive the special instruction.

The number of students with *I-12 behaviors of the experimental group and the number of students with I-12 behaviors of the control group differed in the representation of the total population for their specific groups by only 3% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was broader for the experimental group than for the control group. The upper end of the range was seven points higher than the upper range for the control group. This indicated that experimental group students with I-12 behaviors demonstrated more serious behavior problems when initial data were collected

---

*I-10=behaviors which interferes with their own learning
I-12=behaviors which interferes with others' learning

than did the students with I-12 behaviors of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the students with I-12 behaviors of the experimental group was -5, and the statistical difference for the students with I-12 behaviors of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially .0001. Using .001 as the level of significance, behavioral growth measured for students with I-12 behaviors receiving instruction in behavior was significantly greater than for students with I-12 behaviors who did not receive the special instruction.

The number of students with *I-21 behaviors of the experimental group and the number of students with I-21 behaviors of the control group differed in the representation of the total population for their specific groups by only 4% (see Table 1). As indicated on Table 2, the median initial Ifd score was greater for the experimental group, and the initial interquartile range was shorter for the experimental group than for the control group. However, the upper end of the range was one point higher than the upper end of the range for the control group and the lower end of the range was two points higher than for the control group. This indicated that experimental group students with I-21 behaviors demonstrated slightly more serious behavior problems when initial data were collected than did the students with I-21 behaviors of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the students with I-21 behaviors of the experimental group was -10 and the statistical difference for the students with I-21 behaviors of the control group was -1. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of signficance, behavioral growth measured for students with I-21 behaviors receiving instruction in behavior was significantly greater than for students with I-21 behaviors who did not receive the special instruction. The sample sizes for these groups were small.

The number of students with *I-30 behaviors of the experimental group and the number of students with I-30 behaviors control group differed in the representation of the total population for their specific groups by only 1% (see Table 1). As indicated on Table 2, the median initial Ifd score was the same for the control group and the experimental group. The initial interquartile range was shorter for the experimental group than for the control group. For the experimental group the upper end of the range was two points higher than the upper end of the range for the control group and the lower end of the range was three points higher than for the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the students with I-30 behaviors of the experimental group was -10, and the statistical difference for the students with I-30 behaviors for the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was substantially less than .0001. Using .001 as the level of significance, behavioral growth measured for students with I-30 behaviors receiving instruction in behavior was significantly greater than for students with I-30 behaviors who did not receive the special instruction. The sample sizes for these groups were small.

*I-21=behaviors which interferes with others learning
I-30=harms self or others

Table 2
Comparison of Statistical Differences in Behavioral Change Across the Experimental and Control Groups

Variable	# Cases	Initial Ifd Median Score	Initial Ifd Interquartile Range	Final Ifd Median Score	Final Ifd Interquartile Range	Statistical Difference for Initial and Final Ifd Ifd Median	Mann-Whitney Probability of Difference Calculation
Sex							
Cont. Male	300	19	18-20	18	17-21	-1	0
Exp. Male	308	20	18-22	16	14-18	-4	0
Cont. Female	60	19	17-19	19	18-19	0	0
Exp. Female	52	19	18-22	15	14-17	-4	0
Race							
Cont. White	193	20	18-21	19	18-22	-1	0
Exp. White	198	20	19-22	15	14-18	-5	0
Cont. Non-W.	167	18	17-20	18	17-20	0	0
Exp. Male W.	162	20	18-21	16	14-18	-4	0
Setting							
Cont. Self-Contained	180	20	18-22	19	18-22	-1	0
Exp. Self-Contained	180	20	18-22	15	14-18	-5	0
Cont. Resource	180	19	18-20	18	17-20	-1	0
Exp. Resource	180	20	18-22	16	15-18	-4	0
Level							
Cont. Elem.	120	19	18-20	18	17-21	-1	0
Exp. Elem.	119	20	19-22	16	14-18	-4	0
Cont. Middle	120	19	18-22	18	17-22	-1	0
Exp. Middle	121	20	18-21	14	14-18	-6	0
Cont. Second.	120	19	18-20	19	18-20	0	0
Exp. Secondary	I20	20	18-22	17	14-20	-3	0
Intensity							
Cont. I-10	204	18	18-20	18	17-20	0	0
Exp. I-10	175	19	17-20	15	14-18	-4	0
Cont. I-12	108	20	18-22	19	18-22	-1	0
Exp. I-12	118	21	19-29	16	14-18	-5	0
Cont. I-21	16	27	24-29	28	27-30	+1	.0000009
Exp. I-21	24	28	26-30	18	14-24	-10	
Cont. I-30	32	38	33-38	38	35-40	0	0
Exp. I-30	43	38	36-40	28	14-35	-10	

Key I-10=interferes with own learning I-12=interferes with others' learning I-21=destroys property I-30=harms self or others

Comparison Within the Experimental Group by Student Sex

The number of males of the experimental group and the number of females of the experimental group differed in the representation of the total population for the group by 72% (see Table 1). As indicated on Table 3, the median initial Ifd score was greater for the male students, and the initial interquartile range was the same for the both groups. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the males of the experimental group was -4, and the statistical difference for the females of the experimental group was -4. The probability that the observed difference could occur at random for the two groups as, calculated using the Mann-Whitney Test, was .32. Using .001 as the level of significance, there was no significant difference in the behavioral growth of the two groups.

Comparison Within the Experimental Group by Student Race

The number of white students of the experimental group and the number of non-white students of the experimental group differed in the representation of the total population for the group by 10% (see Table 1). As indicated on Table 3, the median initial Ifd score was the same for the white students and the non-white students. For the white students, the upper and lower end of the initial interquartile range was one point higher than the upper and lower end of the range for the non-white group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the white students of the experimental group was -5, and the statistical difference for the non-white of the experimental group was -4. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was .26. Using the .001 level of significance, there was no significant difference in the behavioral growth of the two populations.

Comparison Within the Experimental Group by Student Educational Setting

The number of self-contained students of the experimental group and the number of resource room students of the experimental group was the same (see Table 1). As indicated on Table 3, the median initial Ifd score was the same for both groups and the intial interquartile range was the same for both groups. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the self-contained students of the experimental group was -5, and the statistical difference for the resource room students of the experimental group was -4. The probability that the observed difference could occur at random for the two groups as calculated using the Mann-Whitney Test, was .07. Using .001 level of significance, there was no significant difference in the behavioral growth of the two populations.

Comparison Within the Experimental Group by Student Educational Level

The number of elementary students of the experimental group and the number of students from all other educational levels of the experimental group differed in the representation of the total population for the group by 33% (see Table 1). As indicated on Table 2, the median initial Ifd score was the same for all educational levels. The upper end of the initial interquartile range was one point lower for the elementary students than for either of the other instructional levels. When final data were analyzed for these three populations, the difference in initial and final Ifd median scores for the elementary students of the experimental group was -4, the statistical difference for the middle school students was -6 and the difference for secondary level students was -3. The probabilities that the observed differences could occur at random for the three groups as calculated using the Mann-Whitney Test, were .23 for the elementary level, .11 for the middle school level and .20 for the secondary level. Using .001 as the level of significance, there were no significant differences in behavioral growth for the three populations.

Comparison Within the Experimental Group by Behavior Intensity

Because behavioral change possibilities differ greatly for students at each of the four levels of intensity, it was deemed inappropriate to use the Mann-Whitney Test to identify significant differences for either the experimental and control groups.

Table 3
Comparison of Statistical Differences in Behavioral Change Within the Experimental Group for the Variables Race, Sex, Education Level, Education Setting and Behavior Intensity

Variable	# Cases	Initial Ifd Median Score	Initial Ifd Interquartile Range	Final Ifd Median Score	Final Ifd Interquartile Range	Statistical Difference for Initial and Final Ifd Median	Mann-Whitney Probability of Difference Calculation
Sex							
Male	308	20	18-22	16	14-18	-4	
Female	52	19	18-22	15	14-17	-4	.32
Race							
White	198	20	19-22	15	14-18	-5	
Non-White	162	20	18-21	16	14-18	-4	.26
Setting							
Self-Contain.	180	20	18-22	15	14-18	-5	
Resource	180	20	18-22	16	15-18	-4	.07
Level							
Elementary	119	20	19-22	16	14-18	-4	.23
Middle	121	20	18-21	14	14-18	-6	.11
Secondary	120	20	18-22	17	14-20	-3	.20
Intensity							
I-10	175	19	17-20	15	14-17	-4	
I-12	118	21	19-29	16	14-18	-5	
I-21	24	28	26-30	18	14-24	-10	
I-30	43	38	36-40	28	14-35	-10	

Key I-10=interferes with own learning I-12=interferes with others' learning I-21=destroys property I-30=harms self or others

Comparison Within the Control Group by Student Sex

The number of males of the control group and the number of females of the control group differed in the representation of the total population for the control group by 66% (see Table 1). As indicated on Table 4, the median initial Ifd score was the same for males and females. The upper and lower end of the initial interquartile range for males was one point lower than the upper range and lower end of the range for the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the males of the control group was -1, and the statistical difference for the females of the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was .02. Using .001 as the level of significance, behavioral growth measured for males receiving management as the primary system for addressing behavior was not significantly greater than for females who received management as the primary system for addressing behavior.

There was, however, an apparent relationship between the sex of the students in the control group and behavior management as a primary system of addressing behavioral change. Had a less conservative level of significance (.05) been used, the findings would suggest that for the students who did not receive instruction in behavior, behavioral growth was greater for males than for females.

Comparison Within the Control Group by Student Race

The number of white students of the control group and the number of non-white students of the control group differed in the representation of the total population for the group by 8% (see Table 1). As indicated on Table 4, the median initial Ifd score was greater for the white students. The upper and lower end of the initial interquartile range was one point lower for the non-white than the upper and lower end of the range for the white. This indicated that white students demonstrated slightly more serious behavior problems when initial data were collected than did the non-white students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the white students of the control group was -1, and the statistical difference for the non-white students of the control group was 0. The probability that the observed difference could occur at random for the two groups, as calculated using the Mann-Whitney Test, was .03. Using .001 as the level of significance, behavioral growth measured for white students receiving behavior management as the primary system for addressing behavior was not significantly greater than for non-white students who received behavior managment as the primary system for addressing behavior.

There was, however, an apparent relationship between the race of the students in the control group and behavior management as a primary system of addressing behavioral change. Had a less conservative level of significance (.05) been used, the findings would suggest that for the students who did not receive instruction in behavior, behavioral growth was greater for white students than for non-white students.

Comparison Within the Control Group by Student Educational Setting

The number of self-contained students of the control group and the number of resource room students of the control group was the same (see Table 1). As indicated on Table 4, the median initial Ifd score was greater for the self-contained group, and the initial interquartile range was broader for the self-contained group than for the resource group. The upper end of the range was two points higher for the self-contained students than the upper end of the range for the resource room students. This indicated that self-contained students of the control group demonstrated slightly more serious behavior problems when initial data were collected than did the resource room students of the control group. When final data were analyzed for these two populations, the difference in initial and final Ifd median scores for the self-contained students was -1, and the statistical difference for the resource room students of the control group was -1. The probability that the observed differences could occur at random for the two groups, as calculated using the Mann-Whitney Test, was .002. Using .001 as the level of significance, there were no significant differences between the behavioral growth of self-contained and resource room control group students.

There was, however, an apparent relationship between the educational setting of the students in the control group and behavior management as a primary system for addressing behavioral change. Had a less conservative level of significance (.05) been used, a significant difference would have been identified.

Comparison Within the Control Group by Student Educational Level

The number of elementary students of the control group and the number of all other students of the control group differed in the representation of the total population for the group by 33% (see Table 1). As indicated on Table 4, the median initial Ifd score was the same for all educational levels. The upper end of the initial interquartile range for middle school students was two points higher than the upper range for elementary or secondary students. When final data were analyzed for these three populations, the difference in initial and final Ifd median scores for the elementary students of the control group was -1, the statistical difference for the middle school students of the control group was -1, and the statistical difference for the secondary level students was 0. The probability that the observed difference could occur at random for the three groups, as calculated using the Mann-Whitney Test, was .0002 for the elementary students, .03 for the middle school students and .02 for secondary level students. Using .001 as the level of significance, behavioral growth at the elementary level for control group students was significantly greater than for students of other educational levels combined.

Table 4
Comparison of Statistical Differences in Behavioral Change Within the Control Group for the Variables Race, Sex, Education Level, Education Setting and Behavior Intensity

Variable	# Cases	Initial Ifd Median Score	Initial Ifd Interquartile Range	Final Ifd Median Score	Final Ifd Interquartile Range	Statistical Difference for Initial and Final Ifd Ifd Median	Mann-Whitney Probability of Difference Calculation
Sex							
Male	300	19	18-20	18	17-21	-1	
Female	60	19	17-19	19	18-19	0	.02
Race							
White	193	20	18-21	19	18-22	-1	
Non-White	167	18	17-20	18	17-20	0	.03
Setting							
Self-Contain.	180	20	18-22	19	18-22	-1	.002
Resource	180	19	18-20	18	17-20	-1	
Level							
Elementary	120	19	18-20	18	17-21	-1	.0002
Middle	120	19	18-22	18	17-22	-1	.03
Secondary	120	19	18-20	19	18-20	0	.02
Intensity							
I-10	204	18	18-20	18	17-20	0	
I-12	108	20	18-22	19	18-22	-1	
I-21	16	27	24-29	28	27-30	+1	
I-30	32	38	33-38	38	35-40	0	

Key I-10=interferes with own learning   I-12=interferes with others' learning   I-21=destroys learning   I-30=harms self or others

Transfer (Independent Use of Appropriate Behavior)

Of the three hundred sixty students in the control group, twenty-three reached transfer during the three-month period. This represents 6% of the control group population. In the experimental group, one hundred forty (39%) of the students reached transfer. The following table presents, for each intensity level, numbers and percentages of students in each group who reached transfer.

Table 5
Transfer of Behavior for Specific Intensity
Levels Across the Control and Experimental Group

	Control			Experimental		
Initial Intensity	Total # Students	# Transfer	% Transfer	Total # Students	# Transfer	% Transfer
I-10	204	16	8%	175	75	43%
I-12	108	7	6%	118	51	43%
I-21	16	0	0%	24	6	25%
I-30	32	0	0%	43	8	19%
Total	360	23	6%	360	140	39%

Key I-10=interferes with own learning
I-12=interferes with others' learning
I-21=destroys property
I-30=harms self or others

Behavioral Change for Frequently Identified Behavior Problems

Specific problem behaviors identified for twenty or more participants in the control group included the following behaviors and frequencies of identification.

	Behavior	Cases
05	Appropriate Attention Seeking	29
09	Controlling Anger	22
13	Appropriate Behaviors Associated with Frustration/Anxiety/Stress	22
16	Controlling Disruptive Behavior	23
18	Staying on Task	52
29	Appropriate Interaction	45
30	Respecting Authority	23

The behaviors above included 60% of the control group participants.

Specific problem behaviors identified for twenty or more participants in the experimental group included the following behaviors and frequencies of identification:

	Behavior	Cases
09	Controlling Anger	36
13	Appropriate Behaviors Associated with Frustration/Anxiety/Stress	33
14	Controlling Impulsiveness	25
16	Controlling Disruptive Behavior	24
18	Staying On Task	76
24	Following Rules and Accepting Consequences	25

The behaviors above included 61% of the experimental group participants.

Behaviors which were identified in twenty or more cases for both the experimental and control group were placed into the charts above to illustrate the frequencies with which the behaviors were demonstrated with specific intensities (I-10=interferes with own learning, I-12=interferes with others' learning, I-21=destroys property, I-30=harms self or others) for each group. Where the behavior was identified for the intensity level three or more times for both the control and experimental group, the average Ifd change between initial and final scores was calculated. Negative score differences represent growth, while positive score differences represent behavioral regression (see Figures 2-5).

Transfer for Frequently Identified Behaviors

Data were analyzed to compare the frequencies with which students in the control group and the experimental group reached transfer (independent use of appropriate behavior) for behaviors identified twenty or more times in both groups. Table 6 presents the numbers and percentages of the two populations reaching transfer for specific behaviors.

Table 6
Transfer for Frequently Identified Behaviors

Problem Behavior	Control			Experimental		
	# Cases	# Transfer	% Transfer	# Cases	# Transfer	% Transfer
Controlling Anger	22	0	0%	36	9	25%
Controlling Disruptive Behavior	23	3	13%	24	5	21%
Staying On Task	52	8	15%	76	29	38%
Appropriate Behavior Associated with Frustration/Anxiety/Stress	22	2	9%	33	16	48%

Extreme differences (±4) were noted in a very few cases for frequently identified behaviors. They included the following:

- For the problem behavior "Controlling Anger," the average difference in the initial and final Ifd score for the students who destroyed property was +6.00. The average difference for the eight students of the experimental group was -3.87.
- For the problem behavior "Controlling Anger," the average difference in the initial and final Ifd score for the four students of the control group who interfered with others' learning was +.75, and -4.62 was the difference for the eight students of the experimental group.
- For the problem behavior "Staying on Task," the average difference in the initial and final Ifd scores for the nine control group students who interfered with others' learning was -1.11, and the difference was -5.37 for the twenty-four students of the experimental group.

The only case in which the average difference between initial and final Ifd scores reflected less growth for the experimental group than for the control group was for the problem behavior "Appropriate Behavior Associated with Frustration/Anxiety/Stress." For the students who destroyed property, the average difference for the three students of the control group was -1.00, and the average difference for the three students of the experimental group was +.33.

Barriers to Instruction

The service providers of the experimental group provided a list of barriers to instruction for each of the behaviors they targeted for instruction. They included student and teacher absenteeism, changes in or problems with medication, and home situations. The items mentioned above constitute 90% of the 290 reported instructional barriers.

For each of the problem behaviors identified twenty or more times by the service providers of the experimental group, an unduplicated listing of the barriers is provided.

Controlling Anger
  Barriers:
- autism
- chronic asthma
- conflict to live with mother/foster parent
- has not been present 20 consecutive days
- home situation
- absenteeism
- inconsistency of medication at home
- inconsistent behavior management at home
- parent uncooperative
- suspensions, juvenile detention center

Appropriate Behaviors Associated with Frustration/Anxiety/Stress
  Barriers:
- two deaths in family
- absenteeism
- bad home situation
- conflicting parental management techniques
- custody
- inconsistent medication
- lives in group home
- no structure or follow-up in home
- placed in psychological unit due to home situation
- stays in group home
- student withdrew due to extended illness

Controlling Impulsiveness
  Barriers:
- divorced parents, in-school suspension and suspended
- first year in classroom
- home situation
- absenteeism
- scheduling
- nine snow days + short day snow schedule
- medication
- teacher absent
- refusal to attend class
- hospitalized

Controlling Disruptive Behavior
  Barriers:
- 30 to 60 days absent
- home situation

- lack of cooperation on part of student
- molested by stepfather
- put in orphanage
- parent abuse
- placed from resource to intensive intervention
- placed inpatient
- suspended 3 days

Staying On Task

Barriers:

- change of teachers
- changed to another classroom
- failure to ask questions
- first year in classroom
- scheduling
- hemophilia
- absenteeism
- home situation, 9 snow days + 7 "B" days
- suspensions
- hospitalized/jailed
- inconsistent medication
- many interruptions
- competency tests
- mother has been institutionalized
- peer pressure
- some retardation
- suspected drug use
- aide change
- teacher absent
- testified in court
- stepbrother murdered
- victim of assault

Following Rules and Accepting Consequences

Barriers:

- been in self-contained class for 3 years
- absent due to suspension
- constant changes in family dynamics
- excessive snow days
- medication ineffective
- medications not given at home
- mom bucks system and influences student behavior
- no home support
- out of school for the summer
- peer and home pressure
- poor home situation

Instructional Time

Information regarding instructional time required for mastery at each of the instructional levels (awareness, understanding, and application) was collected from service providers of the experimental group. In the figure below, the information is reported as average time (hr.:min.) for the behaviors identified as target behaviors in twenty or more cases.

Figure 6
For Frequently Identified Behaviors, Average Instructional Time for Mastery at Each Instructional Level

Behavior	# Cases	% Students Reaching Transfer	Average Instruc. Time for Awareness	Average Instructional Time for Understanding	Average Instructional Time for Application
Controlling Anger	36	25%	2:45	2:45	8:00
Controlling Impulsitivity	25	24%	2:15	2:45	7:00
Controlling Disruptive Behavior	24	13%	3:30	4:00	3:30
Staying On Task	76	38%	2:00	2:00	12:00
Following Rules and Accepting Consequences	25	44%	2:15	5:00	4:00
Appropriate Behavior Associated with Frustration/Anxiety/Stress	33	48%	2:30	3:30	7:00

DISCUSSION

DISCUSSION

This study was designed to investigate the effects of behavior management and systematic behavioral instruction on the behavior of three hundred sixty identified behaviorally-emotionally handicapped students, and to compare the findings to the effects of behavior management alone upon three hundred sixty other identified behaviorally-emotionally handicapped students. The participants represented by the two groups used in the comparisons were matched for educational level and educational setting. Data for one hundred eighty students in each group were collected for each of two three-month cycles - January through March of 1987 and mid-September through mid-December of 1987.

The behavioral instruction system which was implemented by thirty-six service providers required the targeting of specific behaviors for instruction, the measurement (using the Ifd Scale see Appendix B) of behavior prior to instruction, behavioral instruction at the awareness level (designed to assist to recognize his/her own inappropriate behavior), behavioral instruction at the understanding level (designed to assist the student in identifying the causes or triggers of his/her inappropriate behavior), behavioral instruction at the application level (designed to assist the students to identify, select and practice appropriate alternative behaviors) and the measurement of behavior at the end of each three-month cycle of instruction. The system did not require the use of specific instructional strategies or the use of a pre-established curriculum. The service providers were trained to use an instructional concept and to incorporate their own teaching skills and strategies into the instructional approach. Behavior management systems were not addressed in training, but service providers continued to use behavior management (not incorporated into instruction) in their classrooms throughout the study.

The thirty-six service providers who were not trained in behavioral instruction used behavior management as the primary system for producing behavioral change. Data from these individuals were collected at the beginnings and ends of the three-month cycles. Specific behavior problems were reported, and initial and final measurements were made using the Ifd Scale (see Appendix B).

Summary of Findings Through Data Analysis

Comparisons were made across the two groups of three hundred sixty students and within the two groups. The findings reported in the previous section indicate that for the two three-month cycles in which the data were collected, systematic behavioral instruction provided in addition to behavior management was significantly (at the .001 level) more effective in producing behavioral growth than was behavior management alone. Further, the number of students reaching transfer (independent use of appropriate alternatives to inappropriate behaviors) was 33% higher for the three hundred sixty students who received instruction as compared to the three hundred sixty students who did not receive instruction.

There were no significant differences (at the .05 or the .001 levels) in the effects of behavioral instruction which could be associated with the race, sex, educational level (elementary, middle or secondary) or educational setting (resource or self-contained) for students who received systematic behavioral instruction. However, several differences (at the .05 level) for students who received behavior management alone were indicated to be associated with race, sex, educational level and educational setting.

Other Issues Examined

Instructional Time

After the data were collected, twenty of the thirty-six service providers who implemented the instruction were interviewed informally to determine their opinions regarding the effects of instruction. One of the questions asked was whether they believed the instructional time required to implement the system was worth the effort. Seventeen of the service providers stated that for most students, an amount of time equal to the instructional time had been saved as a result of no longer needing to manage the target behavior in the classroom or to deal with reports of the specific inappropriate behavior in other school settings. Some service providers reported that instructing for a second target behavior moved very quickly as compared to their first efforts. They indicated that this may have been, in part, the result of students' recognizing the concepts of learning new behaviors.

Instructional Barriers

The barriers to instruction in behavior, which were identified by the service providers, were the same barriers experienced by most teachers of behaviorally-emotionally handicapped students. They are also the barriers to instruction in the academic areas. The most frequently identified included absenteeism (teacher or student), home situations and problems with medication.

Resistance to Instruction

Resisters to instruction of any kinds, including behavioral instruction, were reported by two individuals. Generally, however, service providers reported that students appeared to enjoy the instruction which was called "health" by some. Others used the terms "communications class," "problem-solving class," and "fixing it." Some instructors did not name the course of study at all.

The Home Influence

One of the concerns expressed by three of the service providers was regression during the summer months. These individuals found that repeating only the application level of instruction produced the behavioral change they desired. A similar concern, expressed by all service providers, was that inappropriate classroom behaviors are, for many students, appropriate and effective behaviors to use in the home. While the appropriate alternatives were consistently used in the school environment, the service providers questioned whether the same behaviors should, could or would transfer to the home environment. In their discussion of the issue, the service providers clearly indicated their recognition that they too select alternatives for specific environments. For some, the behaviors used behind the wheels of their cars in rush hour traffic were noticeably different from their behaviors used in church. For others, behaviors selected for use in the staff lounge differed greatly from the behaviors selected for use in a parent-teacher conference or in a classroom. Whether the behaviors transfer to the home environment or not, teachers agreed that at the very least, the students instructed in appropriate alternatives to inappropriate school and classroom behaviors will be able to make some choices they could not have made prior to behavioral instruction.

Summary Statement

Over the short term during which behavioral change was measured for behaviorally-emotionally handicapped students, systematic behavioral instruction in addition to behavior management produced greater behavioral growth than did behavior management as the primary system for addressing behavioral change. Further, only those problems generic to public school instruction were identified as problems to instruction in behavior.

IMPLICATIONS

IMPLICATIONS

Limitations

There were specific factors which served as limitations to this study. they were:

- As a result of the random sampling technique used in the selection of participants, larger (pupil population of 20,000 or more) Local School Administrative Units were over-represented.
- School plant locations were used to identify demographic areas (urban, suburban, and rural). However, in larger Local School Administrative Units, students in one demographic area were often transported to other demographic areas.
- Some behaviors were too infrequently targeted by the experimental and/or control group to merit analysis.
- Too few students were identified in both cycle I and cycle II data to justify analysis of behavioral progress or regression over a six-month period of time.
- The actual number of days for instruction for many students was greatly reduced by school closures (due to snow) during the cycle I data collection period.

Implications for Further Implementation

Based upon the findings of this study, the North Carolina State Department of Public Instruction, Division for Exceptional Children, Chief Consultant to Programs for Behaviorally-Emotionally Handicapped will focus upon behavioral instruction training for B-EH service providers. Further, the finding of this study will be used in the process of approving and disapproving courses offered by colleges and universities for B-EH teacher certification and endorsement.

Implications for Further Research

Several areas should be addressed by further research. They include but are not limited to the following:

- transfer of behavior into the workplace
- transfer of behavior into the community
- transfer of behavior into the home
- behavioral instruction for the learning disabled, educable mentally retarded and regular education populations
- the length of time for which student behaviors remain at the level of transfer and
- the effects of behavioral instruction upon the ability of former self-contained Behaviorally-Emotionally Handicapped students to succeed in the mainstream

Dissemination

Findings will be reported at State, local, regional and national conferences. Also, an abstract of findings and a copy of the final report will be provided to each State Department of Public Instruction, Division for Exceptional Children. The availability of copies of the final report will be announced on SpecialNet.

Copies (up to 200) of the Guide to Curriculum Development and access to training tapes will be made available for the purpose of copying and training in other state departments, Local School Administrative Units of North Carolina and universities.

Use of Findings

The findings will be used for several purposes within North Carolina. They are:

- to guide future in-field training of B-EH service providers,
- to guide college and university personnel in training B-EH service providers,
- to assist placement committees in using behavioral growth data to make appropriate placement decisions for B-EH students and
- to assist service providers in improving services to the B-EH population.

Side Effects

- Exceptional Children Program Administrators from outside North Carolina have requested to be trained to train teachers to teach new behaviors.

- University personnel and private consultants have requested to be trained to train teachers to teach new behaviors.

- Eighteen Local School Administrative Units and psychologists in four of the eight education regions of North Carolina have requested training in teaching new behaviors.

- Data have been available for use in ongoing training of service providers.

- Service providers in the experimental group were able to receive initial certification and certification renewal credits for participant training.

- An IEP computerized formatting system was developed for use in producing behavioral components for the IEPs of students receiving behavioral instruction (see Appendix K).

- Service providers stated that behaviors not targeted for instruction had improved, they believed, as a result of students' recognizing the concept of using alternative behaviors.

APPENDIX A

TEACHING NEW BEHAVIORS

(Excerpt)

1987
A GUIDE TO CURRICULUM DEVELOPMENT FOR TEACHERS OF THE BEHAVIORALLY/EMOTIONALLY HANDICAPPED

Division for Exceptional Children
North Carolina State Department of Public Instruction

Acknowledgements i

Instruction in New Behavior - The Concept. ii

Guide to Curriculum Development. iii

Glossary - Problem Behaviors and New Behaviors v

Sample Lessons

A Following Rules and Accepting Consequences

Awareness. 1
Understanding. 3
Application. 4

B Following Instructions

Awareness. 5
Understanding. 6
Application. 7

C Respecting Authority

Awareness. 8
Understanding. 9
Application. 10

D On-Task Behavior

Awareness. 11
Understanding. 12
Application. 13

E Appropriate Attention-Seeking Behavior

Awareness. 14
Understanding. 15
Application. 16

F Appropriate Non-Verbal Communication Behaviors

Awareness. 17
Understanding. 18
Application. 19

G Appropriate Expression of Thoughts

Awareness. 21
Understanding. 22
Application. 23

H Controlling Angry Behaviors, Aggression

Awareness. 24
Understanding. 25
Application. 26

I Controlling Disruptive Behavior

Awareness. 28
Understanding. 29
Application. 30

J Controlling Impulsivity

Awareness. 31
Understanding. 32
Application. 33

K Honesty As It Relates To Cheating

Awareness. 34
Understanding. 35
Application. 36

L Making Friends

Awareness. 37
Understanding. 38
Application. 39

M Making Appropriate Choices as a Leader

Awareness. 40
Understanding. 41
Application. 42

N Making Appropriate Leader Choices

Awareness. 43
Understanding. 44
Application. 45

O Achieving Goals

Awareness. 46
Understanding. 47
Application. 48

P Teamwork

Awareness. 49
Understanding. 51
Application. 52

Q Keeping Commitments

Awareness. 53
Understanding. 54
Application. 55

R Appropriate Selfishness

Awareness. 56
Understanding. 58
Application. 59

S Politeness

Awareness. 60
Understanding. 61
Application. 62

T Appropriate Behavior Associated with Frustration, Anxiety and Stress
Awareness. 63
Understanding. 64
Application. 65

Appendices
A Ifd Scale. 66
B Who Talks About Behavior?. 71
C Where Do We Learn About Behavior?. 73
D Planning Forms 74
E Commercially Available Materials 76
F Teaching New Behavior: Keys to Effectiveness. 79

Acknowledgements

This handbook has been developed through the assistance of many. We would like to give special recognition to the following:

Behaviorally/Emotionally Handicapped service providers who attended State funded workshops and North Carolina Council for Behavioral Disorders workshops during the 1983-84 and 1984-85 school years, the Behaviorally/Emotionally Handicapped teaching staff of Durham County Schools, and the following members of the Secondary Behaviorally/Emotionally Handicapped Curriculum Task Force:

Jacob Cohen	Special Services Coordinator Homewood School Highland Hospital Asheville, North Carolina
Dr. Cecelia Steppe-Jones	Chairperson Division for Exceptional Children North Carolina Central University Durham, North Carolina
Dr. Myles Joyce	Special Education Administrator Durham County Schools Durham, North Carolina
Jean Rogers	Psychologist Martin County Schools Williamston, North Carolina
Marjorie Riddle	Teacher Lee County Schools Sanford, North Carolina
Dr. Mary E. Huneycutt	Chief Consultant Behaviorally/Emotionally Handicapped Programs Division for Exceptional Children N. C. State Department of Public Instruction Raleigh, North Carolina
Dr. John Beattie	Assistant Professor Special Education Program UNC-Charlotte Charlotte, North Carolina
David Thompson	Behaviorally/Emotionally Handicapped Teacher Buncombe County Schools Asheville, North Carolina
Sonia Neal Brooks	Private Consultant 107 Hunter Street Apex, North Carolina

Special thanks go to E. Lowell Harris, Director, Division for Exceptional Children, and David Mills, Assistant Director, Program Development Services, Division for Exceptional Children, for their support in this effort. Also, special thanks go to Vivian Holman for typing this draft.

Instruction in New Behavior - The Concept

Complaints regarding student behavior often heard from those who serve the Behaviorally/Emotionally Handicapped (B/EH) include:

> "He's okay most of the time in my room, but the minute he steps into the hall he's in trouble again."
>
> "She would be just fine in the regular class if the other teachers would use the management strategies I recommend."

Each of these complaints suggests that the student is unable to transfer appropriate behavior from one environment to another and that the student is dependent upon external management of behavior. Many B/EH students simply do not learn behaviors through management strategies.

The North Carolina regulations effective January 1, 1985, provide a process to separate students who do learn new behavior through consistently applied management strategies from the students who need instruction in new behavior in order for such learning to occur. We may, therefore, anticipate an increase in B/EH students who will require carefully designed instruction in order to regulate their own behavior in and out of the classroom. One instructional system which is designed to make the student responsbile for his/her own behavior is instruction in new behavior.

Instruction in new behavior is not a classroom model. It is a curricular area just as reading and math are curricular areas. It is not necessary for teachers who prefer to use a specific classroom model to change the model in order to include instruction in new behavior. A classroom model generally provides a structure in which the teacher may address academic needs and manage behavior. Therefore, classroom models which lend themselves to managing behavior and to instruction in math and reading will lend themselves to instruction in new behavior.

Addressing behavior as a curricular issue is similar to addressing reading as a curricular issue. When reading is addressed for the purpose of instruction, it is addressed at the levels of word recognition, comprehension and oral reading. New behavior instruction is taught at levels which parallel reading instruction. The levels are awareness, understanding and application.

Instruction in new behavior is not the "be all-end all" for the B/EH classroom. There will always be some youngsters for whom management of behavior will produce a transfer of learning. Management systems continue to be a necessary part of the B/EH program in order to teach reading or math or new behaviors. There are some students for whom teaching new behaviors may not be effective. Students who lack the mental capacity to conceptualize awareness, understanding, and/or application levels, students who are "psychologically absent" due to drugs or strong resistance to any instruction and students who are physically absent from school with such regularity as to interfere with all instruction may not benefit from instruction in new behavior.

The Guide to Curriculum Development

The Guide to Curriculum Development for Teaching New Behavior should not be confused with a curriculum guide. It does not dictate content, teacher behaviors or instructional activities for the B/EH teacher. It simply provides suggestions which may be helpful to the teacher as he or she develops a curriculum which will address specific behaviors. The student's(s') presenting problems should dictate the curriculum for each student and/or classroom.

The Guide provides a series of sample lessons developed by teachers in North Carolina for instruction in specific behaviors. The lessons are presented in a three level format which includes awareness, understanding and application objectives.

The Awareness level is designed to assist the student in identifying his/her own inappropriate behavior.
The Understanding level is designed to assist the student in identifying the causes of his/her inappropriate behavior.
The Application level is designed to assist the student in identifying, selecting and practicing alternatives to the inappropriate behavior.

Each level of instruction is extremely important to teaching new behavior. Special care must be given not to overestimate the extent to which the student which the student has developed knowledge previously. Instruction should always begin at the awareness level.

The sample lessons include specific objectives for each level and these are presented in a manner which will transfer easily to the Individualized Education Program (IEP). For example, the instructional objective presented at the awareness level for the sample lessons on controlling anger is:

"The student will identify his/her own inappropriate expressions of anger."

A measurable objective for James' IEP might be:

> "Given instruction at the awareness level, James will identify, from a list of ten, five of his own inappropriate expressions of anger by October 18, 1987."
>
> The IEP objective includes five necessary components. They are the following:
>
> 1) under what conditions - Given instructions at the awareness level
> 2) who - James
> 3) will do what - Identify five inappropriate expressions of his own anger
> 4) as measured by - From a list of ten, five (correctly identified)
> 5) by when - October 18, 1987

The teacher behaviors and instructional activities in each sample lesson represent the behaviors and activities some teachers have used in instruction. The strategies and activities used in the sample lessons will not appeal to all teachers. While the students' presenting problems will dictate WHAT is taught and the sample lessons provide the instructional order, the HOW of instruction at each level is based entirely upon the strategies with which the teacher is comfortable and effective.

The goal for each series of lessons is to produce a transfer of new behavior to environments other than the special classroom. As the student progresses through the application level and exhibits the alternative behaviors as a natural response to situations, the teacher has an indication that the behaviors are beginning to transfer into other environments. The transfer to independent behavior is the ultimate goal of instruction for new behavior. Transfer of behavior should extend at least from entering the bus or school grounds each morning to exiting the bus or school grounds each afternoon. It may be unrealistic to hope for the transfer of new behaviors into the home or community if the environment does not support alternative behaviors. It is necessary to recognize that even teachers behave differently in different environments. The words and gestures used by the teacher behind the wheel of his or her car in a moment of anger may be distinctly different from those used by the teacher at school. Teachers generally have a variety of effective behavioral alternatives from which to choose. Behavioral options from which to choose may be the most we can offer some students.

This document is designed for
use in North Carolina Teaching
New Behaviors workshops or in
conjunction with the "Introduction to Teaching New Behaviors"
videotape.

GLOSSARY

PROBLEM BEHAVIORS/NEW BEHAVIORS

INAPPROPRIATE SELFISHNESS	UNSELFISHNESS OR APPROPRIATE SELFISHNESS
DISRESPECT FOR SELF	SELF-RESPECT
RUDENESS	POLITENESS
LACK OF COOPERATION	COOPERATION
INAPPROPRIATE ATTENTION-SEEKING	APPROPRIATE ATTENTION-SEEKING
INAPPROPRIATELY DEALING WITH CRITICISM	APPROPRIATELY DEALING WITH CRITICISM
DISHONESTY AS IT RELATES TO CHEATING, STEALING, LYING	HONESTY AS IT RELATES TO CHEATING, STEALING, LYING
INAPPROPRIATE EXPRESSION OF ANGER	CONTROLLING ANGER
UNREALISTIC FEARS OF FAILURE/ SUCCESS	REALISTIC ACCEPTANCE OF FAILURE/SUCCESS
INAPPROPRIATE LANGUAGE/GESTURES	APPROPRIATE LANGUAGE/GESTURES
INAPPROPRIATE SOCIALIZATION/AFFECT	APPROPRIATE SOCIALIZATION/AFFECT
INAPPROPRIATE BEHAVIORS ASSOCIATED WITH FRUSTRATION/ANXIETY/STRESS	APPROPRIATE BEHAVIORS ASSOCIATED WITH FRUSTRATION/ANXIETY/STRESS
IMPULSIVITY	CONTROLLING IMPULSIVITY
INAPPROPRIATE EXPRESSION OF THOUGHTS	APPROPRIATE EXPRESSION OF THOUGHTS
DISRUPTIVE BEHAVIOR	CONTROLLING DISRUPTIVE BEHAVIOR
OFF-TASK BEHAVIOR	ON-TASK BEHAVIOR
NOT FOLLOWING INSTRUCTIONS	FOLLOWING INSTRUCTIONS
LACK OF DIRECTION	SETTING GOALS
REJECTING ABILITIES AND LIMITATIONS	ACCEPTING ABILITIES AND LIMITATIONS
BREAKING PROMISES	KEEPING COMMITMENTS
INDECISION	DECISION-MAKING

GLOSSARY

PROBLEM BEHAVIORS/NEW BEHAVIORS

DISOBEYING RULES AND REJECTING CONSEQUENCES	FOLLOWING RULES AND ACCEPTING CONSEQUENCES
UNCOOPERATIVE GROUP BEHAVIOR	TEAMWORK
INABILITY TO MAKE FRIENDS	MAKING FRIENDS
MAKING INAPPROPRIATE LEADER CHOICES	MAKING APPROPRIATE LEADER CHOICES
OBNOXIOUS BEHAVIOR	SUBTLE NON-VERBAL PEOPLE-PLEASING BEHAVIOR
MANIPULATION	APPROPRIATE INTERACTION
NOT RESPECTING AUTHORITY	RESPECTING AUTHORITY

NEW BEHAVIOR Following Rules and Accepting Consequences

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her inappropriate behavior when he/she does not follow rules and accept consequences.

Teacher Behavior	Instructional Activities/Suggestions
1) Define "rule."	1) The teacher may wish to use "an authoritative regulation for action" or a "way of acting behavior."
2) Describe why people need rules.	2) The teacher may wish to provide an example in which rules are not applied and what happens when there are not rules for people to follow.
3) Describe how you behave when you do not follow rules.	3) The teacher may need to describe how he/she (the teacher) has broken rules.
4) Provide examples in which rules are vital.	4) The teacher may wish to provide examples which explain why rules are needed and vital. Selected examples: four-way stop sign, a one-way highway, exit and entrance ramps for interstate highways, sports events in general (participating and/or viewing), the courtroom, church, clubs or groups, the school cafeteria, etc.
5) Guide the student in describing situations when he/she followed rules which were vital and to explain why.	5) Examples may include following fire drill rules, not crossing the street against the light, not playing with a gun, etc.
6) Define "consequences."	6) The teacher might write on the board: "consequence--a result of an action, process, etc.; outcome; effect; a logical result or conclusion" or "consequence--something that happens because of something else."
7) Provide examples of consequences when people do not follow rules.	7) The teacher might choose specific examples of rules and provide the logical consequences when the rules are not followed.

	Example: (A) Driving the wrong way on a one-way street. Logical consequence - a wreck and the expenses and/or injuries associated with a wreck. Legal consequence - large fine, trip to court, etc. (B) Behaving inappropriately in the cafeteria where everybody is trying to get something to eat at the same time. Logical consequence - you don't get anything to eat, you could be shoved, you could become angry which leads to a fight. Legal consequence - charges of disorderly conduct, assault, etc.
8) Have the student identify consequences encountered by self or others when rules were not followed.	8) The teacher may encourage the student to list, select, or recite examples he/she has experienced (include situations outside of the classroom). Note: False bravado, "macho," or oppositional attitudes could surface if this activity is not focused.
9) Provide an opportunity for the student to identify what his/her behavior was when he/she refused to accept consequences.	9/10) The teacher will want to take special care to keep this from becoming highly judgemental and may have to assist by giving personal examples.
10) Provide an opportunity for the student to identify what his/her behavior was when he/she did not follow rules.	

NEW BEHAVIOR Following Rules and Accepting Consequences

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify the causes for his/her inappropriate behavior when he/she does not follow rules and accept consequences.

Teacher Behavior	Instructional Activities/Suggestions
1) Help the student describe rules and consequences he/she feels are important or needed.	1) Note: This activity may include laws, highway regulations and school rules.
2) Discuss from history some of the causes that have motivated people not to accept rules or consequences.	2) The teacher may mention lack of religious freedom, tax laws, debtors' prison, racial freedom, etc.
3) Assist the student in identifying his/her causes for not accepting rules or consequences.	3) Note: The reasons may not be acceptable cause for not following rules or accepting consequences but if there is reason to believe the student is giving an honest response, do not express a judgement.

NEW BEHAVIOR Following Rules and Accepting Consequences

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select and practice alternatives to his/her inappropriate behavior when not following rules or accepting consequences.

Teacher Behavior	Instructional Activities/Suggestions
1) Assist the student in recognizing reasons for rules and the connection between rules and consequences.	1) The teacher may wish to begin with general rules such as laws or traffic regulations before moving to school rules.
2) Provide an opportunity to identify, select and demonstrate the ability to follow a rule.	2) Examples which may be demonstrated could include walking rather than running down halls, not pushing in lines, raising the hand before speaking, etc.
3) Demonstrate for the student how to accept consequences when rules are not followed.	3) Self-talk may be used to analyze out loud. Ex. I should have walked down the hall, I didn't, I ran. Now I must go back to the room and start over.
4) Guide the student to demonstrate following rules and accepting consequences.	4) The teacher may wish to guide the student to use self-talk.
5) Guide the student in practicing following rules and accepting consequences.	5) The student may use a signal such as pulling his/her ear, putting the left hand behind the back or scratching the shoulder to show he/she is deliberately practicing following a rule or accepting a consequence.
6) Record the frequency with which the student follows rules and appropriately accepts consequences in the classroom.	6) The teacher may wish to inform the student that records are being kept and share the records with the student. Note: Immediate feedback will be needed.
7) Provide prompt and specific feedback to the student regarding progress.	
8) Assist the student in self-monitoring the practice of following rules and accepting consequences.	8) The teacher may wish to help the student develop a record-keeping system and review it regularly.

NEW BEHAVIOR Following Instructions

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her inappropriate behaviors which hinder following instructions.

Teacher Behavior	Instructional Activities/Suggestions
1) Have the student identify reasons people should follow directions.	1) The teacher may wish to add to the list of reasons and may write the reasons on the board.
2) Have the student describe ways a person might have to follow directions.	2) The teacher may list these for the student to observe. Examples: - by listening - by watching - by reading
3) Have the student describe situations that have occurred because he/she or others did not follow instructions.	3) The teacher may ask for examples in several settings (hallways, home, classroom, playground).
4) Provide the student with examples of when following instructions is vital.	4) The teacher may provide examples which are vital: - taking tests (listening to the teacher) - knowing the time a bus leaves (schedule) - taking medications - listening to weather reports when inclement weather is near - knowing when signs are missing
5) Guide the student to identify behaviors in situations in which he/she did not follow directions.	5) Have the student recall the times he/she did not follow instructions and then to state the outcomes of the behavior.

NEW BEHAVIOR Following Instructions

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify his/her causes for not following instructions.

Teacher Behavior	Instructional Activities/Suggestions
1) Review with the student situations in which he/she did not follow oral or written instructions and identify possible causes.	1) The teacher may list these examples: - lack of attention (daydreaming) - not listening because he/she may be talking to classmate-(any other reason) - not directing his/her eyes toward the task - unclear instructions
2) Direct the student to describe situations when he/she almost always follows instructions.	2) The teacher will predict and ask the student to add situations when following instructions is automatic.
3) Provide a story about failure to follow instructions. Identify the interfering behavior and let student state consequences.	3) Make up or locate a story where terrible consequences occur because instructions were not followed.
4) Assist the student in identifying his/her reasons for not following instructions.	4) Go back to #1. Add any behavior not listed there.

NEW BEHAVIOR Following Instructions

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select, and practice alternatives not following directions.

Teacher Behavior	Instructional Activities/Suggestions
1) Assist the student in recognizing reasons for following instructions.	1) List many reasons why not following instructions could mean trouble. Then, list reasons why students should follow instructions.
2) Provide an opportunity to identify, select, and demonstrate the ability to follow instructions.	2) The teacher may give written and/or oral instructions for completing a given task.
3) Explain the importance of bringing unclear instructions to the teacher's attention.	3) The teacher should make the student aware that an adult may speak in a more difficult language without being aware that he/she is doing it. The student should make the adult aware of this by getting his/her attention in an appropriate manner.
4) Guide the student in practicing and following instructions in and out of the classroom.	4) The teacher may wish to use these activities: - point out specific details to look for in a reading selection - ask the student to do three things in order (add more information as practice increases) - use maps - use sheets on following direction - use listening drills
5) Help the student to develop a record-keeping system for self-monitoring in and out of the classroom.	5) The teacher may develop the monitoring system and discuss with the student how to use it. The teacher may want to develop a code system in class to recognize when extra effort is given to following instructions.
6) Provide prompt and specific feedback to the student regarding progress.	6) The student may need constant feedback at the beginning.

NEW BEHAVIOR Respecting Authority

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her behaviors which show a lack of respect for authority.

Teacher Behavior	Instructional Activities/Suggestions
1) Define "authority."	1) Define authority as "a person or persons with power or an expert in a field."
2) Guide the student to identify persons who represent authority.	2) Use T.V. characters, teacher, principal, policemen, elders, president, governor, etc.
3) Define "respect and disrespect."	3) To respect is "to regard or hold in high honor - to show courtesy." To disrespect is "to treat unkindly or to be rude."
4) Guide the student to give examples of people who should get respect because they represent authority.	4) Show pictures from various sources. Examples should show people getting respect. The student should point out authority figures and tell why he/she should be respectful to them.
5) Guide the student to identify situations when disrespect is given authority.	5) Have the student give examples of situations when disrespect is shown to authority.
6) Allow the student to list disrepectful/inappropriate comments to authority figures.	6) Have the student make a list of things that he/she should not say to authority figures.
7) Guide the student to make a list of appropriate comments to authority.	7) Make a list of respectful comments to authority figures.
8) Guide the student to identify his/her own disrepectful comments or behaviors shown to authority.	8) Develop other respectful and disrepectful comments (add to above list) to authority figures. Have the student identify his/her own respectful and disrespectful behaviors.

NEW BEHAVIOR Respecting Authority

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify causes for his/her own disrespectful behaviors to authority.

Teacher Behavior	Instructional Activities/Suggestions
1) Review the many examples of respectful behavior to authority.	1) It may be helpful to show pictures, video or filmstrips for the student to recognize a certain situation.
2) List times when he/she (the teacher) has been disrespectful to authorities, and give causes.	2) Use teacher instances and have the student to comment and give additional possible reasons for disrespectful behavior.
3) Guide the student to explain reasons for respecting authority.	3) Use a list of authorities. Have the student give examples and state reasons these authorities should be respected. Examples: - firemen - teachers - principal - mother/father - policemen
4) Guide the student to identify the possible causes for his/her own disrespect to authority.	4) Have the student explain situations when he/she has disrespected authority. Have him/her list the causes. Examples: - being angry - believing authority may be wrong - meanness

NEW BEHAVIOR Respecting Authority

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select, and practice alternatives to his/her own behaviors which show a lack of respect for authority.

Teacher Behavior	Instructional Activities/Suggestions
1) Guide the student to identify respectful behaviors given to authority.	1) List the behaviors.
2) Guide the student to identify situations and reasons respecting authority is necessary.	2) The teacher may provide examples of why respecting authority is necessary for everyone.
3) Provide the student with the opportunity to demonstrate his/her respect for authority.	3) Ask the student to do the following for practice: - respond with a simple "yes" or "no" - look at the person when he/she speaks - use a pleasant voice tone when answering direct questions - shake hands
4) Provide feedback in #3.	
5) Provide a system which allows the student to indicate when he/she is continuously practicing behaviors for respecting authority.	5) The student may use some cue which shows that the student is practicing being respectful to authority.
6) Provide an opportunity for the student to demonstrate respectful behaviors to authority by inviting them to the classroom.	6) The invited guest needs to be informed to direct his/her questions or mannerisms to the student.
7) Provide direct and immediate feedback when the student indicates he/she is making an effort to respect authority.	7) The teacher should use a record-keeping system to show student improvement is being made.

NEW BEHAVIOR On-Task Behavior

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her own off-task behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Guide the student to identify off-task behavior demonstrated by the teacher.	1) The teacher may wish to demonstrate off-task behaviors such as daydreaming, adjusting shoes, doodling, or filling out a register after stating that he/she must have a stack of papers graded in five minutes. The student may be asked to answer the question "What's wrong here?"
2) Define "off-task behavior."	2) The teacher may use "any behavior which interferes with finishing a job within a given time."
3) Guide the student to apply the definition to others' behaviors.	3) The student may wish to demonstrate off-task behaviors. Discourage the demonstration of parents' and fellow students' behaviors.
4) Guide the student to identify his/her own off-task behaviors.	4) The student may wish to demonstrate the off-task behaviors.

NEW BEHAVIOR On-Task Behavior

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify causes for his/her own off-task behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Review definition of off-task behavior.	1) The student may use his/her own words in the definition.
2) Identify causes used by the teacher for his/her own off-task behavior in a brief demonstration.	2) Possible causes may include: a. the difficulty of the task b. the simplicity of the task c. television is more interesting d. physical discomfort e. not understanding directions, and/or not understanding time limits, etc.
3) Assist the student in identifying causes of off-task behavior in the teacher demonstration.	3) The student may add to the list above after seeing what the teacher is doing instead of the actual given task.
4) Develop a list of teacher and student identified causes for off-task behavior.	
5) Guide the student to identify his/her own causes of off-task behavior.	5) The teacher may need to encourage the student to extend the list beyond those he/she has given.

NEW BEHAVIOR On-Task Behavior

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select and practice alternatives to off-task behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Review the list of causes for off-task behavior.	1) It is the student's list of his/her own causes of off-task behavior which should be used.
2) Explain the importance of the need to have alternatives.	2) It is important for the student to recognize that even as an adult he/she will have to control his/her off-task behavior.
3) Give examples of alternatives you sometimes use.	3) Alternatives the teacher uses may include: self-talk, setting up a schedule, altering the environment, putting everything else away, turning off the T.V., etc.
4) Assist the student in identifying alternatives possible for each cause in his/her list.	4) It is the student's list of his/her own causes of off-task behavior which should be used.
5) Assist the student in selecting alternatives to practice.	5) If the list is especially long, only 2 or 3 alternatives may be selected and later others may be added.
6) Guide practice in the classroom.	6) The student may prop a card on his/her desk to show that he/she is consciously using an alternative.
7) Develop or assist the student in the development of a record-keeping system for self-monitoring in and/or out of the classroom.	
8) Review records at regular intervals.	

NEW BEHAVIOR Appropriate Attention-Seeking Behavior

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her own inappropriate attention-seeking behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Define the term "attention-seeking" behavior.	1) Write on board the term "attention-seeking." Have the student explain what it means to him/her. The teacher may add "behavior exhibited to draw attention to the person."
2) Give examples of "attention-seeking" behavior and explain which behavior is or is not appropriate.	2) Possible examples may include the following: - raising the hand to attract teacher's attention when the student doesn't have a question - tapping the desk - using cosmetics or brushing hair in class - getting out of the seat to throw away trash, sharpen pencil, bother another student, or to visit the teacher's desk - talking out of turn in class
3) Provide an opportunity for the student to apply the definition to teacher examples and identify appropriate or inappropriate attention-seeking behavior.	3) Use several examples: Sally has finished her work in class. Other students continue to work quietly. Sally hits Andy's chair to ask to borrow his crayons. Sally gets crayons and draws a picture. She raises her hand, Ms. Teacher goes to her desk, Sally shows her the completed assignment and the completed picture.
4) Provide an opportunity for the student to apply the definition to behaviors observed in others.	4) Assist the student in giving examples of inappropriate attention-seeking behaviors seen in younger children or adults (exclude parents and classmates) and through discussion, assist in determining whether others' desires or needs were considered.
5) Provide an opportunity for the student to describe his/her own attention-seeking behavior.	5) Assist the student in reporting (in oral or written form) situations in which he/she has acted with an inappropriate attention-seeking behavior. Have the student give reasons.

NEW BEHAVIOR Appropriate Attention-Seeking Behavior

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify his/her own causes for inappropriate attention-seeking behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Review the definition of attention-seeking behavior.	1) The student may put the definition in his/her own words.
2) Identify the causes used by the teacher for his/her own inappro- attention-seeking behavior in a brief demonstration.	2) Possible causes may include these examples: - to annoy classmates - to annoy teacher - rushing through assignment
3) Provide examples of appropriate and inappropriate attention-seeking behaviors and give causes.	3) The student may: - bang his/her hand on the desk instead of raising a hand to get the teacher's attention - get out of seat to sharpen his/her pencil and then decide to empty the pencil sharpener - get out of seat quietly to borrow a pencil from the teacher
4) Guide the student to develop a story of inappropriate and appropriate attention-seeking behavior and give causes for the behavior.	4) The student may elaborate on the list from above to develop his/her own story.
5) Guide the student to identify the causes of his/her own inappropriate attention-seeking behavior.	5) Ask the student to develop a list of his/her attention-seeking behaviors and give causes for each.

NEW BEHAVIOR Appropriate Attention-Seeking Behavior

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select, and practice alternatives to inappropriate attention-seeking behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Demonstrate appropriate attention-seeking behaviors by reasoning and using points of the definition.	1) A student asks to borrow a sheet of paper from the teacher. He/she does this before the class begins. Examples: - Mary needs to use the restroom. - She raises her hand quietly and explains her need to the teacher. - She did not blurt her private matters out loud to the entire class.
2) Provide a list of alternatives to inappropriate attention-seeking behavior.	2) If the teacher can't come to a student's desk immediately after a hand has been raised. Examples: - go to another problem on the assignment sheet - sit quietly until the teacher arrives - think about situations or use self-talk to control for anger or annoyance
3) Provide an opportunity for the student to select from alternative appropriate attention-seeking behavior he/she wishes to practice.	3) The teacher may use a list of his/her own behaviors and the student behaviors may be added to the list.
4) Provide an opportunity for the student to demonstrate appropriate attention-seeking behavior in a situation in which he/she previously acted with inappropriate attention-seeking behavior.	4) Allow the class to participate. The teacher may want to use real life situations, role-play the inappropriate behaviors first, then role-play the appropriate behaviors to discriminate between appropriate and inappropriate attention-seeking behaviors.
5) Guide the student to practice and record alternatives to inappropriate attention-seeking behavior.	5) Have the student keep a record of his/her own attention-seeking behaviors and to list alternatives for the inappropriate behaviors.

NEW BEHAVIOR Appropriate Non-Verbal Communication Behaviors

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her own appropriate non-verbal communication behaviors.

Teacher Behavior	Instructional Activities/Suggestions
1) Define the terms "verbal" and "non-verbal" behaviors.	1) Verbal behaviors require the use of the spoken language. Non-verbal behaviors are facial expressions, nods, body language, etc.
2) Guide the student in sorting a list into non-verbal and verbal behaviors.	
3) Distinguish between subtle and obvious non-verbal behaviors.	3) The teacher may need to demonstrate how a grin gives a different message from a polite smile.
4) Demonstrate negative non-verbal listener behaviors (inattention, infrequent eye contact and punishing attention) and allow the student to determine whether the behaviors are or are not people pleasers.	4) Note: Punishing attention offers eye contact, but the listener looks through the speaker or uses a "who cares" facial expression.
5) Demonstrate negative non-verbal speaker behaviors (inattentive behavior, partial eye contact, body language and unpleasant facial expressions).	
6) Allow the student to demonstrate inappropriate non-verbal listener and speaker behaviors he/she has seen others use.	6) Note: The teacher may need to guide the student away from mocking classmates' behaviors.
7) Guide the student to identify his/her own inappropriate non-verbal listener and speaker behaviors.	7) A videotape may be used for the student to point out his/her own inappropriate behavior.

NEW BEHAVIOR Appropriate Non-Verbal Communication Behaviors

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify causes for his/her own inappropriate non-verbal behavior.

Teacher Behavior	Instructional Activities/Suggestions
1) Guide the student to "read" the message in non-verbal behavior demonstrated.	1) The teacher may wish to demonstrate facial expressions, walking styles, body positions, etc. which give messages.
2) Confirm for the student the fact that non-verbal behaviors are meant to communicate message.	2) The teacher may use some of his/her own non-verbal behaviors for which the student will know the message.
3) Guide the student to give several specific negative messages non-verbally.	3) Examples: "I don't hear a word you are saying." "I'm confused." "I'm angry." "Don't call on me." "I don't want to do this."
4) Guide the student to identify the causes (messages) of his/her own negative non-verbal behaviors.	4) The student may be guided to demonstrate the behavior and tell the message.

NEW BEHAVIOR Appropriate Non-Verbal Communication Behaviors

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select and practice alternatives to inappropriate non-verbal behaviors.

Teacher Behavior	Instructional Activities/Suggestions
1) Assist the student in demonstrating positive listener behaviors.	1) The teacher may wish to provide scripts for pair activities. The script may require direct eye contact, nods and smiles of understanding, etc.
2) Assist the student in demonstrating positive speaker behaviors.	2) Note: Again, scripts or guided pair activities may be used.
3) Guide the student in demonstrating specific non-verbal speaker and listener behaviors as people pleasers.	3) The student may write his/her own scripts and identify the behaviors he/she plans to use as a speaker or listener.
4) Guide the student to choose at least 3 non-verbal people pleasing behaviors for practice and monitoring.	
5) Provide a system which allows the student to indicate when he/she is consciously practicing chosen behaviors in the classroom.	5) The student may use a folded card which is propped upright when he/she is consciously using selected behaviors.
6) Provide direct and immediate feedback when the student indicates he/she is making an effort to use chosen behaviors.	6) The teacher should use both verbal and non-verbal behaviors to show approval and recognition of the student's efforts.
7) Provide opportunities for the student to practice chosen behaviors on classroom guests.	7) The teacher may wish to invite the principal, another teacher or parent to speak on some topic under study to allow for practice. Feedback should be given.
8) Provide the opportunity for the student to discuss the observable impact of chosen behaviors on invited guest.	8) The invited guest may be informed in advance that the student will be practicing listening behaviors and that the student will need feedback regarding his/her efforts.

9) Assist the student in developing a record-keeping system for chosen behavior practice outside the classroom.	9) Note: A student who is mainstreamed may keep records while in other classrooms. Also, a student may record efforts and results in hallways, cafeterias, buses or school grounds.
10) Give regular feedback regarding student-kept records.	10) Note: Records should be reviewed regularly.

NEW BEHAVIOR Appropriate Expression of Thoughts

INSTRUCTIONAL LEVEL Awareness

INSTRUCTIONAL OBJECTIVE The student will identify his/her own inappropriate expression of thoughts.

Teacher Behavior	Instructional Activities/Suggestions
1) Discuss with the student the meaning of expressing a thought.	1) The teacher may suggest "to speak" one's mind."
2) Provide examples of situations in which someone would express his/her thoughts.	2) The teacher should list both inappropriate and appropriate situations and expressions of thoughts.
3) Provide examples of when inappropriate expressions of thoughts were to be used.	3) Give several examples from your own experiences of situations when inappropriate expressions of thoughts were used.
4) Provide the opportunity for the student to identify expressions of thoughts in others.	4) Assist the student in giving examples of inappropriate expression of thoughts seen in others when certain situations occur. Examples: - the student may be accused of doing something he/she did not do. Instead of explaining to the teacher, he/she may say something inappropriate that may get him/her in trouble. - a person hits his/her finger with a hammer, he/she curses
5) Guide the student in describing situations when he/she has used inappropriate expressions of thought.	5) The teacher may want to add situations in which swearing, cursing, name calling were used.
6) Provide an opportunity for the student to describe his/her own inappropriate expressions of thought.	6) Assist the student in reporting (in oral or written form) situations in which he/she has used inappropriate expressions of thoughts.

NEW BEHAVIOR Appropriate Expression of Thoughts

INSTRUCTIONAL LEVEL Understanding

INSTRUCTIONAL OBJECTIVE The student will identify the causes for his/her own inappropriate expressions of thoughts.

Teacher Behavior	Instructional Activities/Suggestions
1) Review the definition from #1 awareness level.	1) Write the meaning of "inappropriate expression of thoughts."
2) Provide opportunities for the student to define "inappropriate expression of thoughts" and to give his/her own meaning.	2) Ask the student to give examples as he/she gives meaning of inappropriate expression of thoughts.
3) Discuss with the student appropriate and inappropriate expression of thoughts and the causes for the behavior.	3) The teacher should help the student to develop an understanding of the concepts for both behaviors. The teacher may wish to use personal examples.
4) Guide the student to develop a story of inappropriate and appropriate expression of thoughts and to give causes for the behavior.	
5) Guide the student to identify the inappropriate expresssion of thoughts that he/she may express at some time.	5) The student may wish to make a list of the inappropriate expression of thoughts he/she exhibits.
6) Have the student identify the causes for using inappropriate expressions of thoughts.	6) Have the student list several things which cause him/her to use the inappropriate expressions of thoughts.

NEW BEHAVIOR Appropriate Expression of Thoughts

INSTRUCTIONAL LEVEL Application

INSTRUCTIONAL OBJECTIVE The student will identify, select, and practice alternatives to inappropriate expressions of thoughts.

Teacher Behavior	Instructional Activities/Suggestions
1) Demonstrate appropriate expression of thoughts by using acceptable comments.	1) The teacher may give inappropriate comments to the student and have the student give appropriate expression of thoughts for the inappropriate comments.
2) Provide a list of alternatives to inappropriate expression of of thoughts.	2) The teacher should include appropriate expression of thoughts and alternatives.
3) Provide an opportunity for the student to select from the list of appropriate alternatives the examples he/she wishes to practice.	3) The teacher may use an extensive list of his/her own and student behaviors to use in making selections.
4) Guide the student to demonstrate expressing thoughts both inappropriately and appropriately in several situations.	4) The teacher will want to maintain control of the situation but this activity should be fun and may cause the exaggeration of responses.
5) Guide the student to practice and record alternatives to inappropriate expressions of thoughts.	5) Use a simple record-keeping system. The student may list inappropriate comments to make in situations. He/she should list appropriate expression of thoughts used in situations in and out of the classroom.

Pages 24-65 of this document have been omitted to reduce duplication costs. A complete copy of the document and training tapes are available through the North Carolina State Department of Public Instruction, Division for Exceptional Children, Raleigh, North Carolina.

Appendix B

Ifd Scale

Description

I^{30}	Behavior causes injury to self or others
I^{21}	Behavior causes destruction or harm to property
I^{12}	Behavior disrupts others' learning
I^{10}	Behavior disrupts students' own learning
f^{1}	Less than once per week
f^{2}	Once per week
f^{3}	More than once per week
f^{4}	Once per day
f^{5}	More than once per day
d^{1}	Less than one minute
d^{2}	One to two minutes
d^{3}	Two to three minutes
d^{4}	Three to four minutes
d^{5}	4+ minutes

$Ifd = I + f + d$

APPENDIX C

Data Reporting Form E

____ School code

____ Student code (1st initial & 01-07)

____ Student age (years)

____ Student race (white 01, non-white 02)

____ Student sex (male 01, female 02)

____ Problem behavior (see coded behavior)

____ Intensity value (10, 12, 21 or 30)

____ Initial intensity/frequency/duration score

____ Initial level of function for behavior (awareness 01, understanding 02, application 03)

____ Closing level of function (awareness 01, understanding 02, application 03, transfer 04)

____ Estimated instructional hours required for awareness mastery (or NA)

____ Estimated instructional hours required for understanding mastery (or NA)

____ Estimated instructional hours required for application mastery (or NA)

____ Estimated instruction hours required for transfer (Ifd score 14 or below)

____ Final intensity, frequency, duration score

Barriers: Environmental (ex. home situation) ____________________

Instructional (ex. scheduling, absenteeism) ____________

Appendix D

Data Collection Form (Control Interview)

Teacher Code _________

First Initial & Code ___

___ ___ ___
Age Race Sex

What is student's present reading level ___ g.e.

Frequency with which reading is presented as primary instructional focus _____

Approximate duration of reading instruction _____

What is student's present math level _____ g.e.

Frequency with which math is presented as primary instructional focus ________

Approximate duration of math instruction _____

Major behavioral problem ______________________________

Frequency with which behavior occurs ___________________

Duration of each occurance ______________

APPENDIX E

____ School Code

____ Student age (years)

____ Student race (white 01, non-white 02)

____ Student sex (male 01, female 02)

____ Problem behavior

____ Initial value (10, 12, 21 or 30)

____ Initial intensity/frequency/duration score

____ Final intensity/frequency/duration score

APPENDIX F

Problem Behavior Code

(Presented in the form of corrected behavior)

A. Self Control/Self Expression

01 Unselfishness
02 Self-respect
03 Politeness
04 Cooperation
05 Appropriate attention seeking
06 Appropriately accepting criticism
07 Honesty as it relates to cheating
08 Honesty as it relates to stealing and/or lying
09 Control of anger
10 Realistic acceptance of feelings of failure/success
11 Appropriate language/gestures
12 Appropriate socialization/affect
13 Appropriate behaviors associated with frustration/anxiety, stress
14 Control impulsiveness
15 Appropriate expression of thoughts
16 Control disruptive behavior
17 Other

B. Taking Responsibility

18 Staying on task
19 Following instructions
20 Setting goals
21 Accepting abilities and limitations
22 Keeping commitments
23 Decision-making
24 Following rules and accepting consequences
25 Other

C. Positive Relationships

26 Teamwork
27 Making friends
28 Subtle non-verbal communication
29 Appropriate interaction
30 Respecting authority
31 Other

D. 32 Does not fit A, B, or C other

APPENDIX G

BUDGET CODE: 3510-1226-1990-XXXX-15
AMOUNT: $600.00
SOURCE OF FUNDS: Federal
PERIOD: 4/8/87 - 5/30/87
CONTRACT NUMBER: A-0043

This Agreement, made and entered into this 8th day of April, 1987 between the North Carolina State Board of Education, Raleigh, North Carolina, hereinafter referred to as the "NCSBE", and Data Dynamics (Mike McGee), located at Post Office Box 37488, Raleigh, North Carolina 27606, hereinafter referred to as the Contractor.

WITNESSETH

For and in consideration of the mutual promises to each other, hereinafter set forth, the parties do mutually agree as follows:

A. The Contractor hereby agrees to provide professional services as follows:

To develop a statistical package for a federally funded project with the Division for Exceptional Children (monitored by Dr. Mary E. Huneycutt). See attachment.

B. The NCSBE agrees to pay the Contractor the sum of $600.00, said sum to be full and complete payment for services to be rendered under this contract.

C. The dates and terms of this contract between the NCSBE and the Contractor will be for the period of April 8, 1987, through May 30, 1987.

D. The Contractor and the NCSBE hereby agree to the following terms and conditions:

1. CONTRACT RESIDENCY. It is agreed between the parties hereto that the place of this contract, its situs and forum, will be Wake County, North Carolina, and in said county and state will all matters, whether sounding in contract or tort relating to the validity, construction, interpretation and enforcement of this contract, be determined. North Carolina law will govern the interpretation and construction of this contract.

2. PROJECT COORDINATOR. Richard Clontz is designated as the Project Coordinator for the NCSBE. The Project Coordinator shall be responsible for ensuring Contractor conformance with terms, conditions, performance specifications as set forth in this contract, and an evaluation of the Contractor's performance. The NCSBE has complete discretion in replacing the Project Coordinator with another person of its own choosing.

3. RIGHT OF TERMINATION. The NCSBE may terminate this agreement at any time at its complete discretion by thirty days notice in writing from the NCSBE to the Contractor. In that event, all finished or unfinished documents and other materials shall, at the option of the NCSBE, become its property. If the contract is terminated by the NCSBE, as provided herein, the Contractor will be paid in an amount which bears the same ratio to the total compensation as does the service actually performed to the total service set forth in this agreement.

4. METHOD OF PAYMENT. The Contractor will submit an invoice according to the payment schedule set forth in this agreement. Invoices should be billed to Accounts Payable Section, Controller's Office, North Carolina Department of Public Education, but directed to the Project Coordinator, as identified herein, for approval of payment. Payment will be made within thirty days upon receipt by Accounts Payable of a requisition for payment from the Project Coordinator confirming that the Contractor has satisfactorily completed the work required under this contract and evidenced by said invoices.

5. CONTRACT FUNDING. It is understood and agreed between the Contractor and the NCSBE that the payment of compensation specified in this agreement, its continuation or any renewal or extension thereof, is dependent upon and subject to the appropriation of funds to, and allocation by, the NCSBE for the purpose set forth in this contract. Should such funds not be appropriated or allocated, this contract shall immediately be terminated. The NCSBE shall not be liable to Contractor for damages of any kind (general, special or consequential) as a result of such termination.

6. CONTRACT TRANSER. The Contractor shall not assign or transfer any interest in this agreement without the prior written approval of the NCSBE.

7. CONTRACT MODIFICATIONS. This contract may be amended only by written amendments duly executed by and between the NCSBE and the Contractor. However, minor modifications may be made by the NCSBE Project Coordinator to take advantage of unforeseen opportunities that: (a) do not change the intent of the contract or the scope of the Contractor's performance; (b) do not increase the Contractor's total compensation or method of payment; and (c) either improve the overall quality of the product or service to the State without increasing the cost, or reduce the total cost of the product or service without reducing the quantity or quality. All such minor modifications to the contract must be recorded in writing and signed by both the Project Coordinator and the Contractor, and placed on file with the Director of Administrative Services, NCSBE. All changes not of a minor nature, as cited above, will be made by formal contract amendment.

8. TERMINATION FOR CAUSE. If, through any cause, the Contractor fails to fulfill in a timely and proper manner the obligations under this contract, the NCSBE will thereupon have the right to terminate this contract by giving written notice to the Contractor of such termination and by specifying the effective date thereof, at least ten (10) days before the effective date of such termination. In such even, the Contractor will receive just and equitable compensation for any satisfactorily completed work. Notwithstanding, the Contractor shall not be relieved of liability to the NCSBE for damages sutained by the NCSBE by virtue of any breach of this contract or failure to perform, and the NCSBE may withhold payment to the Contractor for the purpose of set off until such time as the exact amount of damages due the NCSBE from such breach or failure can be determined.

9. OWNERSHIP OF CONTRACT PRODUCTS. The Contractor agrees that all products, records and data tapes produced under this contract become the property of the NCSBE.

10. IDENMIFICATION. The Contractor is an independent entity and, as such, is solely responsible for the employment, acts and omissions, control and directions of its employees. The Contractor will save the NCSBE harmless from any and all claims, demands or courses of action that may be asserted due to production activity of the Contractor on accounts referred by the NCSBE.

IN WITNESS THEREOF, the NCSBE and Contractor have executed this agreement on the day and year herein above first written.

ATTEST:

FOR THE NORTH CAROLINA STATE BOARD OF EDUCATION:

James G. Macaulay 5/26/87

JAMES G. MACAULAY, CONTRACTS OFFICER DATE

L. REEVES MCGLOHON, ASSOCIATE STATE SUPERINTENDENT DATE

CONTRACTOR:

Michael J. McGee 5/15/87

DATE

56-1469890

SOCIAL SECURITY/ID NUMBER

PERSONAL SERVICES CONTRACT Contract No. ____________

The North Carolina State Board of Education (NCSBE) and ____________________ ____ (Contractor) agree as follows:

Services to be Provided:

Schedule visits to project designated schools
Visit designated schools
Collect data for Project #1226
Submit data for Project #1226 to Dr. Mary Huneycutt, Project Coordinator

Date or Term of Services:

December 11 - January 30, 1987

Fee for Services:

$840.00

CONTRACTOR'S SIGNATURE DATE	NCSBE CONTRACTS OFFICER DATE

Address ____________________
____
____
Telephone # ____________________
Soc. Security# ____________________

ASSOC. STATE SUPT. DATE

Contract Initiated by: ______________________________ (Signature/Division)

Contract Approved by: ______________________________ (Signature/Title)

Contract Satisfactorily Completed ____________________ Date__________

- -

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: ___/___/___ Batch No.__________ Contract No. __________

Budget Code 3510 Vendor No. ☐☐☐☐☐☐☐☐

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT	CR
3510	1226	1990	XXXX	15		840.00	
↓							

Availability of Funds Certified by: ______________________________
Accountant Date

White/Green/Yellow-Contracts Officer Pink-Accounting Goldenrod-Originator

PERSONAL SERVICES CONTRACT Contract No. ____________

The North Carolina State Board of Education (NCSBE) and ______________________________ (Contractor) agree as follows:

Services to be Provided:

Make telephone contact with designated schools.
Collect data from designated schools.
Submit data for Project #1226 to Dr. Mary E. Huneycutt, Project Coordinator.

Date or Term of Services:

March - April 1987

Fee for Services:

$120.00

CONTRACTOR'S SIGNATURE DATE

NCSBE CONTRACTS OFFICER DATE

Address ____________________
____
____

Telephone # ____________________

Soc. Security# ____________________

ASSOC. STATE SUPT. DATE

Contract Initiated by: ______________________________ (Signature/Division)

Contract Approved by: ______________________________ (Signature/Title)

Contract Satisfactorily Completed ____________________ Date ____________

- -

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: ___/___/___ Batch No. ____________ Contract No. ____________

Budget Code | | 3 | 5 | 1 | 0 |

Vendor No. | | | | | | | | |

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT	CR
3510	1226	1990	XXXX	15		1 2 0 0 0	

Availability of Funds Certified by: ______________________________
Accountant Date

White/Green/Yellow-Contracts Officer Pink-Accounting Goldenrod-Originator

PERSONAL SERVICES CONTRACT **Contract No.** ____________

The North Carolina State Board of Education (NCSBE) and ______________________
____ **(Contractor) agree as follows:**

Services to be Provided:

Provide data for Project #1226 during interview December 1986-January 1987 and by telephone March-April.

Date or Term of Services:

December 11, 1986 - April 30, 1987

Fee for Services:

$25.00

______________________ ______________________
CONTRACTOR'S SIGNATURE DATE **NCSBE CONTRACTS OFFICER DATE**

Address ______________________
____
____

Telephone # ______________________
Soc. Security# ______________________

____
ASSOC. STATE SUPT. DATE

Contract Initiated by: ______________________ **(Signature/Division)**

Contract Approved by: ______________________ **(Signature/Title)**

Contract Satisfactorily Completed ______________________ **Date** ____________

- -

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: ___/___/___ **Batch No.** __________ **Contract No.** __________

Budget Code 3 5 1 0 **Vendor No.**

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT	CR
3510	1226	1990	XXXX	15		25.00	
↓							

Availability of Funds Certified by: ______________________
Accountant **Date**

[illegible] Contracts Officer Pink-Accounting Goldenrod-Originator

PERSONAL SERVICES CONTRACT Contract No. ____________

The North Carolina State Board of Education (NCSBE) and ______________________
____ (Contractor) agree as follows:

Services to be Provided:

Implement instruction in new behavior.
Provide data.

Date or Term of Services:

January 1, 1986 - March 30, 1987

Fee for Services:

$100.00

CONTRACTOR'S SIGNATURE DATE

NCSBE CONTRACTS OFFICER DATE

Address ______________________

Telephone # ______________________
Soc. Security# ______________________

ASSOC. STATE SUPT. DATE

Contract Initiated by: ______________________ (Signature/Division)

Contract Approved by: ______________________ (Signature/Title)

Contract Satisfactorily Completed ______________________ Date __________

- -

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: ___/___/___ Batch No. __________ Contract No. __________

Budget Code | | 3 | 5 | 1 | 0 |

Vendor No. | | | | | | | | |

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT	CR
3510	1226	1990	XXXX	15		1 0 0 0 0	
↓							

Availability of Funds Certified by: ______________________
Accountant Date

White/Green/Yellow-Contracts Officer Pink-Accounting Goldenrod-Originator

PERSONAL SERVICES CONTRACT Contract No. ____________

The North Carolina State Board of Education (NCSBE) and ______________________
______________________________________ (Contractor) agree as follows:

Services to be Provided:

Serve as writer/reviser of The Guide to Curriculum Development in Teaching New Behaviors consistent with Federal Project #159AH60011.

Meeting with the Behaviorally/Emotionally Handicapped Consultant two days (12 hours) and independent work one day (6 hours).

Date or Term of Services:

November 16-18, 1986

Fee for Services:

$600.00

CONTRACTOR'S SIGNATURE DATE

NCSBE CONTRACTS OFFICER DATE

Address ______________________
____
____

Telephone # ______________________

Soc. Security# ______________________

ASSOC. STATE SUPT. DATE

Contract Initiated by: ______________________ (Signature/Division)

Contract Approved by: ______________________ (Signature/Title)

Contract Satisfactorily Completed ______________________ Date__________

- -

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: ___/___/___ Batch No.__________ Contract No. __________

Budget Code | | 3 | 5 | 1 | 0 |

Vendor No. | | | | | | | | |

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT ✓	CR
3510	1226	1990	XXXX	15		600 00	
↓							

Availability of Funds Certified by: ______________________
Accountant Date

White/Green/Yellow-Contracts Officer Pink-Accounting Goldenrod-Originator

PERSONAL SERVICES CONTRACT Contract No. ____________

The North Carolina State Board of Education (NCSBE) and ____________________ (Contractor) agree as follows:

Services to be Provided:

Training in teaching new behaviors will be provided in two two-day training sessions:

December 16-17, 1986 in Morganton
December 18-19, 1986 in Fayetteville

for Federal Project #159AH60011.

Date or Term of Services:

December 16, 17, 18 and 19, 1986

Fee for Services:

$857.20 ($800.00-fee; $57.20-Social Security)

CONTRACTOR'S SIGNATURE DATE
NCSBE CONTRACTS OFFICER DATE

Address ____________________
____
____

Telephone # ____________________
Soc. Security# ____________________

ASSOC. STATE SUPT. DATE

Contract Initiated by: ____________________ (Signature/Division)

Contract Approved by: ____________________ (Signature/Title)

Contract Satisfactorily Completed ____________________ Date ____________

ACCOUNTING CODE
Encumbrance Journal (J30)

Date: __/__/__ Batch No. ________ Contract No. ________

Budget Code | | 3 | 5 | 1 | 0 |

Vendor No. | | | | | | | | |

DEPT/DIV	FUND	OBJECT	RCC	FRC	PROGRAM	AMOUNT	CR
3510	1226	1990	XXXX	15		857 20	
↓							

Availability of Funds Certified by: ____________________
Accountant Date

White/Green/Yellow-Contracts Officer Pink-Accounting Goldenrod-Originator

APPENDIX H

LOADING CHART

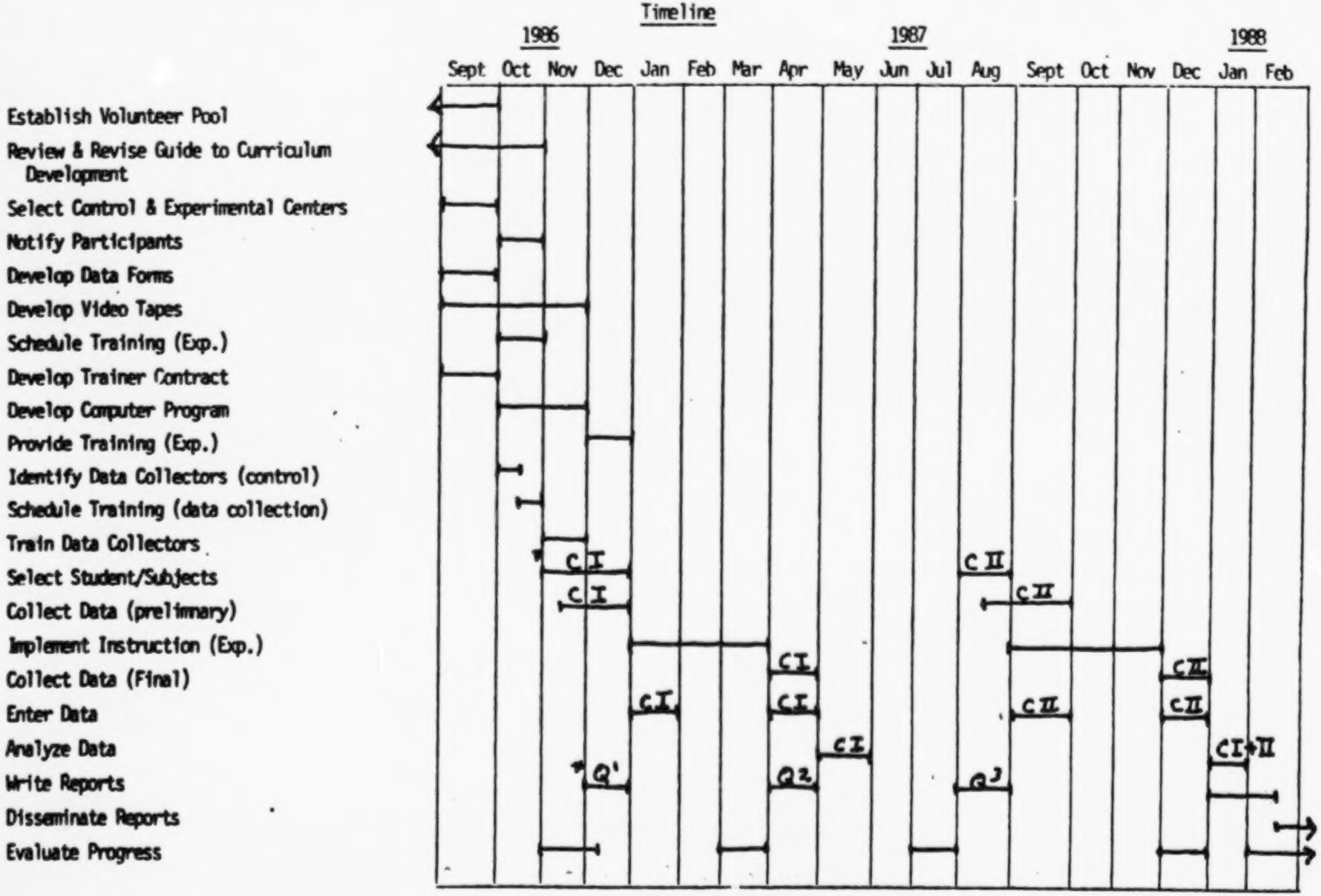
Title	Name	Responsibility	Time Commitment	Disclosure of Time Commitment or Present Employment	Qualifications
Director	E. Lowell Harris	Notify participants & LEA superintendents, report project progress to: regional coordinators, Leadership Team, LEA administrators and others as directed, meet regularly with project evaluator or coordinator	10 days	Full-time employee-SDPI Division for Exceptional Children	MA-Special Education Director-Division for Exceptional Children
Evaluator	David Mills	Assure agreements and timelines are met, assess progress, report regularly to director	11 days	Full-time employee-SDPI Division for Exceptional Children	MA-Special Education Asst. Director-Program Development Services, Division for Exceptional Children
Budget Coordinator	W. L. Rose	Organize funds into N.C. format process expenditures, assure N.C. regulations followed, keep director and coordinator informed of balance	5 days	Full-time employee-SDPI Division for Exceptional Children	MA-School Administration and Supervision Asst. Director-Division for Exceptional Children
*Project Coordinator	M. E. Huneycutt	Assist in Guide review and revision, write proposal and reports, schedule all training, oversee tape production, develop trainer contracts, identify data collectors, oversee data collection, provide data collector training, establish volunteer pool, select centers, select student subjects, assist in data analysis, disseminate information, attend D.C. meetings as required	91 days	Full-time employee-SDPI Division for Exceptional Children	MA-Special Education MA-Psychology PhD-Education Administrator Chief Consultant B/EH
Secretary	Unknown	Type proposal letters and reports, mail materials, collate materials, direct inquirers, maintain files, receive data, sort data, enter computer data (possible)	40 days	Full-time employee-SDPI Division for Exceptional Children	Secretary II/III
*Trainers (Experimental Group)	M. L. Calhoun J. Beattie	Provide training in up to 3 locals, provide preparation in kind (2 days), help to identify data collectors control, assist in report writing and data analysis	8 days 8 days	Full-time instructor Univ. N. C. at Charlotte Full-time instructor Univ. N. C. at Charlotte	MA - Special Education Ph.D. - Special Education MA - Speech Path. Ph.D. - Special Education

LOADING CHART (CONTINUED)

Title	Name	Responsibility	Time Commitment	Disclosure of Time Commitment or Present Employment	Qualifications
Service Providers (36 experimental)	Unknown (random)	Receive training, implement instruction, collect data, submit data	22 days	Full-time B/EH teachers	Certified Special Education teachers
Data Collectors (2-6) (Control group)	Unknown	Receive training, collect Cycle I and II data preliminary on-site final by phone, submit data	72 days (Total)	Full or Part-time Graduate students in Special Education	BS in Education or Psychology
Service Providers (36 control)	Unknown (random)	Meet with data collectors, respond to collectors questions, respond to telephone	3 hrs.	Full-time B/EH teachers	Certified Special Education teachers
Computer Programmer and Analyst	Unknown	Develop data management program, enter computer data (possible), yield data output for analysis	10 days	Unknown	Trained Programmer/Analyst
Guide to Curriculum Reviewers	Unknown (Possibly Beattie & Calhoun above)	Receive piloted guide, revise as suggested, provide product for training and implementation use	6 days	Unknown	Unknown
Video Producers (4)	Unknown	Prepare production script, appear as tape subjects, demonstrate	4 days	Full-time employees Homewood School Pilot Center	Certified Special Education teachers & experienced in Teaching New Behaviors
Video Editor	Bruce Clark	Tape production, edit tapes, produce graphics, copy tapes	4 days	Full-time employee-SDPI Division Media	Certified Media Specialist

*Vitae available in Appendix D

APPENDIX I



CI = Cycle I
CII = Cycle II
Q1 - Q3 = Quarterly Reports

APPENDIX J

Project Funding

Experimental Center Staff Training	
Substitues $30 X 36 participants X 2 days	2,160.00
Travel 200 mi. X 36 participants X .20	1,440.00
Meals and Lodging $47 (state rate) X 36 participants X 2 days	3,384.00
Trainer Costs	
Travel 450 mi. X 3 trips X 2 trainers	2,700.00
Meals and Lodging $47 X 6 days X 2 trainers	564.00
Data Collector(s)	
Travel 9000 mi. (72 locations) x .20	1,800.00
Meals and Lodging $47 X 72 days	3,384.00
Required Travel to D.C. $450 X 2 participants 3 trips	2,700.00
Project Coordinator In-State Travel	400.00
Contracted Services	
Data Collectors (experimental) $100 per cycle (2) X 36	7,200.00
Data Collector(s) (control) $40 per day 72 days	2,880.00
Teachers (control) $25 X 2 hr. collector efforts X 36 participants	1,800.00
Trainer Fee $200 X 6 days X 2 trainers	2,400.00
Curriculum Review and Revision $200 per day X 6 days X 6 reviewers	1,900.00
Data Program Development and Analysis Assistance $200 X 10 days	2,000.00
Dissemination	600.00
	37,312.00

N. C. State Department, Division for Exceptional Children, Funding in Kind

Project Director	10 days @ 187	1,870.00
Project Evaluator	11 days @ 145	1,595.00
Project Budget Operations	5 days @ 145	725.00
Project Secretary II/III	40 days @ 50.65	2,026.00
Project Coordinator	91 days @ 135	12,285.00
Media Specialist	4 days @ 135	540.00
Trainer (#1) 2 days prep X $200		400.00
Trainer (#2) 2 days prep X $200		400.00
Indirect Costs 6.3% of 37,212.		2,350.00
Tape Prep Staff 4 members X 4 X 135		2,160.00
Dissemination		400.00
Project Coordinator in State Travel		200.00
Training Materials Production		200.00
		25,151.00
Other State funded		
4 video tapes (edited and encased)		80.00
		25,231.00

Total Project Costs

Funding Requested	37,312 =	60%
N. C. Primarily in Kind	25,231 =	40%
	62,543 =	100%

Appendix K

IEP Goals and Objectives for New Behaviors Instruction

The format of this printout is consistent with the State IEP Form DEC 7/HCA and will serve as the behavioral component of the IEP.

Screen	Contents	Comments
		To get started, be sure the caps lock key is down.
1	This program has been developed by Data Dynamics and the N.C. State Dept. of Public Instruction for Exceptional Children. It should be used only: 1) By teachers trained to new behaviors and 2) After the IEP Team (including the parent or guardian) have targeted specific behaviors for transfer of learning.	Introductory Information
2	The IEP you are about to write will be completely individualized and will offer you direction in behavioral instruction. Please respond to each item carefully.	Introductory Information
3	Teacher Student Name Preferred Sex Grade School	In "Name Preferred," enter the acceptable name used by the student in the classroom.
4	Behavior to be addressed: 1 Inappropriate behavior associated with ___ or 2 Inappropriate expressions of ___ or 3 Inappropriate ___ behavior	Select a number 1-3.
4 Continued	Inappropriate expressions of?	Enter the target behavior. (spaces are limited)
5	Starting Date (Ex-01/01/80)	Use two digits between slashes.
6	Please enter values for: I=21, F=3, D=5, Ifd=29 I-10=Disrupts own learning, I-12=Disrupts others' learning, I-21=Destroys property, I-30=Harms self or others. F-1=Less than once a week, F-2=Once a week, F-3=More than once week, F-4=Daily, F-5=More than once a day. D-1=Less than 1 minute, D-2=1 to 2 minutes, D-3=2 to 3 minutes, D-4=3 to 4 minutes, D-5=More than 4 minutes.	I (Intensity, F (Frequency) and D (Duration) will show as you enter the values and the Ifd score will be calculated. Scores of 14 or below will produce a special screen. Not a severe behavior, handle through, management. Process another IEP? (Y/N)?

7	Objective #1 Anticipated completion date:	Enter the date for completion of objective #1 NOT the date for the completion of the IEP.
7 Continued	Objective #1 Evaluation Criteria 1 Select ___ from a list of ___ with ___ %Accuracy 2 Illustrate ___ with ___ %Accuracy, 3 List ___ with ___ %Accuracy, 4 Demonstrate, upon request ___ with ___ %Accuracy, 5 other (identify), Select one and complete	After the # has been selected, fill in the blanks as indicated for A, C and/or B
8	Objective #2 Anticipated Completion Date:	Enter the date for completion of objectives #2 Not the date for the completion of the IEP.
8 Continued	Objective #2 Evaluation Criteria 1 Select ___ from a list of ___ with ___ %Accuracy 2 Illustrate ___ with ___ %Accuracy 3 List ___ with ___ %Accuracy 4 Demonstrate, upon request ___ with ___ %Accuracy 5 Other (identify)	After the # has been selected, fill in the blanks as indicated for A, C and/or B
9	Objective #3 Anticipated completion Date:	This may be the completion date for the IEP.
10	Ready to print? (Y/N)Y Narrow or wide printer? (N/W)W How many copies would you like?	"Wide" is like the example attached and usually looks better than the narrow version.
11	Prepare printer. Press "P" to print "A" to abort:	Be sure paper is lined up correctly.
12	Do you need to reprint? (Y/N)N Process another IEP? (Y/N)N	Check to see how your IEP looks before you answer this.

BEST COPY AVAILABLE

DEC 7 HCA

TEACHER: HUNEYCUTT

A. STUDENT: BILL FOLD

GRADE: 05 SCHOOL: BROWN MIDDLE

ANNUAL GOAL(S): GIVEN INSTRUCTION IN NEW BEHAVIORS, BILLY WILL DECREASE HIS IFD SCORE FOR INAPPROPRIATE BEHAVIOR ASSOCIATED WITH ANXIETY FROM 26 TO 14 OR BELOW.

B. DATE: FROM 12/01/87

TO 04/21/88

C. PRESENT LEVEL(S) OF PERFORMANCE
(SUMMARIZE EVALUATION RESULTS DEC-5):
INAPPROPRIATE BEHAVIOR ASSOCIATED WITH ANXIETY
*I=21 F=2 D=3 IFD=26

D.

SHORT-TERM INSTRUCTIONAL OBJECTIVES	EVALUATIVE CRITERIA	DATE ATTAINED
OBJECTIVE #1 GIVEN INSTRUCTION AT THE AWARENESS LEVEL, BILLY WILL IDENTIFY HIS OWN INAPPROPRIATE BEHAVIOR ASSOCIATED WITH ANXIETY BY 01/28/88.	LIST 10 WITH 100 % ACCURACY.	
OBJECTIVE #2 GIVEN INSTRUCTION AT THE UNDERSTANDING LEVEL, BILLY WILL IDENTIFY THE CAUSES OF HIS OWN INAPPROPRIATE BEHAVIOR ASSOCIATED WITH ANXIETY BY 02/26/88.	SELECT 20 FROM A LIST OF 30 WITH 100 % ACCURACY.	
OBJECTIVE #3 GIVEN INSTRUCTION AT THE APPLICATION LEVEL, BILLY WILL IDENTIFY, SELECT AND PRACTICE APPROPRIATE ALTERNATIVES TO INAPPROPRIATE BEHAVIOR ASSOCIATED WITH ANXIETY BY 04/21/88.	TEACHER OBSERVATIONS AND STUDENT-KEPT RECORDS SHALL INDICATE AN IFD OF 14 OR BELOW FOR 30 CONSECUTIVE INSTRUCTIONAL (5 1/2 HRS) DAYS.	

---

*INTENSITY FREQUENCY AND DURATION (IFD) SCORE
I-10=DISRUPTS OWN LEARNING, I-12=DISRUPTS OTHERS' LEARNING, I-21=DESTROYS PROPERTY, I-30=HARMS SELF OR OTHERS
F-1=LESS THAN ONCE A WEEK, F-2=ONCE A WEEK, F-3=MORE THAN ONCE A WEEK, F-4=DAILY, F-5=MORE THAN ONCE A DAY
D-1=LESS THAN 1 MINUTE, D-2=1 TO 2 MINUTES, D-3=2 TO 3 MINUTES, D-4=3 TO 4 MINUTES, D-5=MORE THAN 4 MINUTES

Appendix A

The Intensity, frequency, duration (Ifd) scale is NOT TO BE USED IN THE IDENTIFICATION OF BEHAVIORALLY/EMOTIONALLY HANDICAPPED STUDENTS. It is designed to assist B/EH service providers in:

1) selecting individual student target behavior for instruction
2) grouping students for instruction and
3) determining behavioral change

The scale is based on data collected through opinionnaires. Two-hundred thirty-four (234) special education teachers provided an information base which was transposed into a formula to produce score interactions consistent with 226 of the teachers' stated beliefs as they related to the seriousness of pupil behavior.

The following Ifd scale was produced with values assigned to intensity, frequency and duration.

Description	Intensity Value
I^{30} Behavior causes injury to self or others	30
I^{21} Behavior causes destruction or harm to property	21
I^{12} Behavior disrupts others' learning	12
I^{10} Behavior disrupts student's own learning	10
	Frequency Value
f^{1} Less than once per week	1
f^{2} Once per week	2
f^{3} More than once per week	3
f^{4} Once per day	4
f^{5} More than once per day	5
	Duration Value
d^{1} Less than one minute	1
d^{2} One to two minutes	2
d^{3} Two to three minutes	3
d^{4} Three to four minutes	4
d^{5} More than four minutes	5

In determining the Ifd score, the teacher simply adds the values I + f + d. The behavior of each student which yields the highest Ifd score is identified as the target behavior.

Example: A. James' humming and grunting is an "I^{12}" behavior because it interferes with others' learning. It occurs very infrequently at the f^{1} level but it lasts for long periods of time d^{5}. The behavior has an Ifd score of 18 (=12 + 1 + 5).

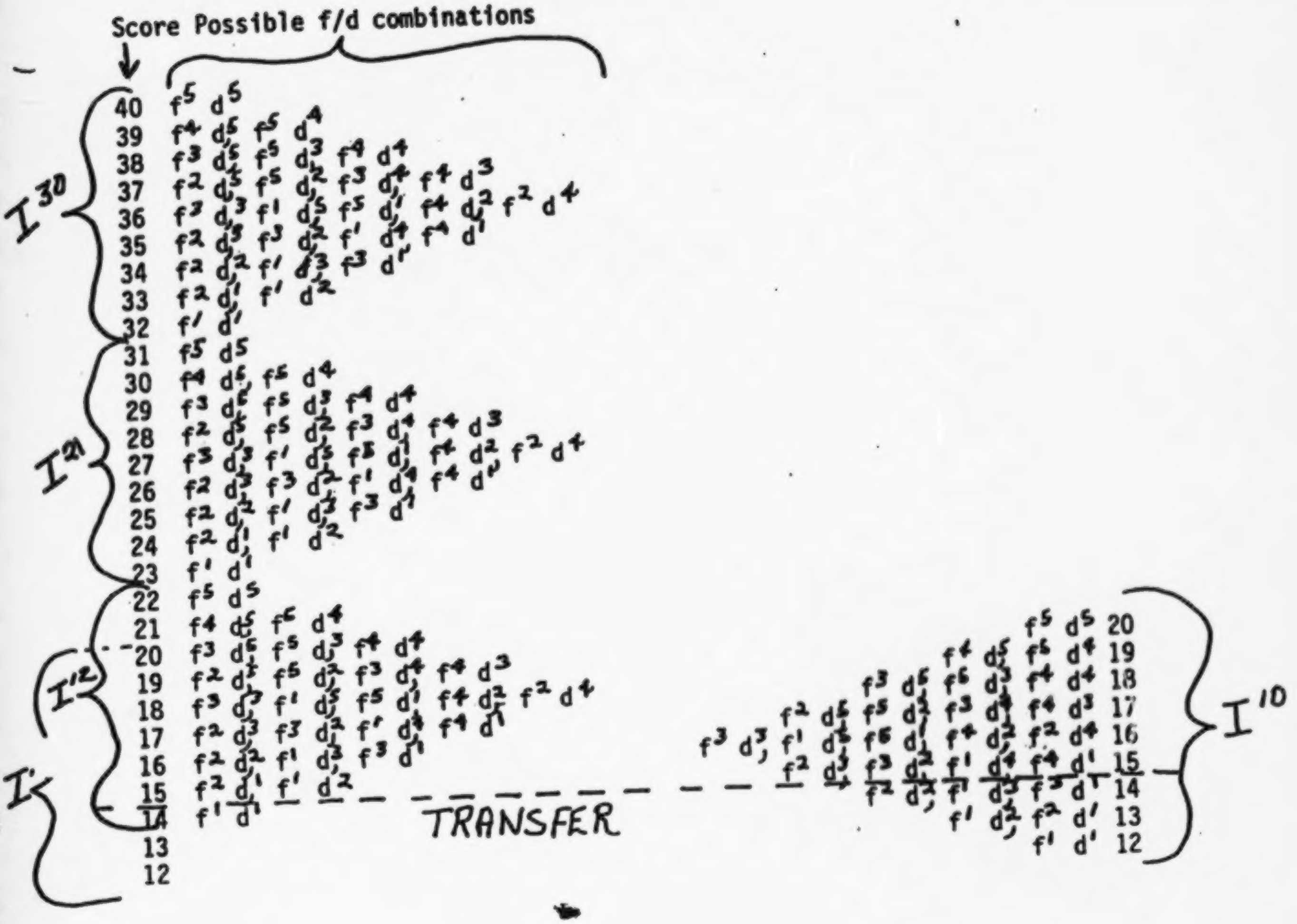
B. James' off-task behavior is an "I^{10}" behavior but it occurs several times a day (f^{5}) and for periods of time greater than five minutes (d^{5}). The off-task behavior has an Ifd score of 20 (=10 + 5 + 5).

The off-task behavior is the target behavior for instruction. The service provider will continue to use management strategies to address the humming and grunting behavior.

I^{10} and I^{12} behaviors overlap at the points the 230 teachers viewed the behaviors of equal concern. I^{10} and I^{12} behaviors cannot overlap I^{21} or I^{30} at any point. Teachers believed that I^{10} and I^{12} behaviors at f^{5} and d^{5} were not as serious a concern as I^{21} at f^{2} and d^{2}. Also I^{21} at f^{5} and d^{5} will not overlap I^{30} behaviors at the f^{2} + d^{2}.

The selection of the Ifd score of 14 and below 14 as the transfer indicator was determined when 100% of the teachers agreed that all possible I, f and d combinations above 14 require change prior to mainstreaming a student and all possible combinations of I, f and d of 14 and below 14 are generally acceptable behaviors in most (98%) of the regular classrooms.

When presented with the issue that for any I value increased frequency (ex. f^{1} to f^{5}) and decreased duration (ex. d^{2} to d^{5}) would yield no Ifd score change, more than ninety-three (93) percent of the teachers viewed the difference as insignificant and as no indication of growth or regression in the target behavior. However, more than ninety-eight (98) percent of the teachers viewed the information as valuable in redirecting instruction regarding the target behavior.


Score Possible f/d combinations
40 $f^5 d^5$
39 $f^4 d^5 f^5 d^4$
38 $f^3 d^5 f^5 d^3 f^4 d^4$
37 $f^2 d^5 f^5 d^2 f^3 d^4 f^4 d^3$
36 $f^3 d^3 f^1 d^5 f^5 d^1 f^4 d^2 f^2 d^4$
35 $f^2 d^3 f^3 d^2 f^1 d^4 f^4 d^1$
34 $f^2 d^2 f^1 d^3 f^3 d^1$
33 $f^2 d^1 f^1 d^2$
32 $f^1 d^1$
31 $f^5 d^5$
30 $f^4 d^5 f^5 d^4$
29 $f^3 d^5 f^5 d^3 f^4 d^4$
28 $f^2 d^5 f^5 d^2 f^3 d^4 f^4 d^3$
27 $f^3 d^3 f^1 d^5 f^5 d^1 f^4 d^2 f^2 d^4$
26 $f^2 d^3 f^3 d^2 f^1 d^4 f^4 d^1$
25 $f^2 d^2 f^1 d^3 f^3 d^1$
24 $f^2 d^1 f^1 d^2$
23 $f^1 d^1$
22 $f^5 d^5$
21 $f^4 d^5 f^5 d^4$
20 $f^3 d^5 f^5 d^3 f^4 d^4$
19 $f^2 d^5 f^5 d^2 f^3 d^4 f^4 d^3$
18 $f^3 d^3 f^1 d^5 f^5 d^1 f^4 d^2 f^2 d^4$
17 $f^2 d^3 f^3 d^2 f^1 d^4 f^4 d^1$
16 $f^2 d^2 f^1 d^3 f^3 d^1$
15 $f^2 d^1 f^1 d^2$
14 $f^1 d^1$
13
12
I^{30}
I^{21}
I^{12}
I^1
TRANSFER
$f^5 d^5$ 20
$f^4 d^5 f^5 d^4$ 19
$f^3 d^5 f^5 d^3 f^4 d^4$ 18
$f^2 d^5 f^5 d^2 f^3 d^4 f^4 d^3$ 17
$f^3 d^3 f^1 d^5 f^5 d^1 f^4 d^2 f^2 d^4$ 16
$f^2 d^3 f^3 d^2 f^1 d^4 f^4 d^1$ 15
$f^2 d^2 f^1 d^3 f^3 d^1$ 14
$f^1 d^2 f^2 d^1$ 13
$f^1 d^1$ 12
I^{10}

A Test to Determine the Accuracy of Ifd Scores in Describing Behavior.

The instrument was tested to determine whether teachers' written descriptors would be consistent with the numerical descriptors.

In a brief narrative form, forty-two (42) teachers described for each of seven (7) students a problem behavior, how often it occurred and how long the behavior lasted. The narratives were distributed across four (4) persons ("valuators") assigned the responsibility of determining Ifd scores for each student. Twenty-eight (28) hours later, and after being trained in using the Ifd scale, teachers were asked to match the narrative to the Ifd score obtained by one of the four (4) "valuators." Once the "valuators" had determined the Ifd score the student name was written on the back of the card giving the score and behavior.

Activity 1

Each of the forty-two (42) teachers was given six (6) cards which should have matched narratives and one which should not. The teachers were told to match the scores to the narrative. Thirty-nine (39) of the forty-two (42) found the card which would not match any narrative.

Activity 2

Each of the thirty-nine (39) narratives was then given an Ifd score by the teacher and each teacher set out to find the Ifd score which matched his/her narrative. Once the teacher was satisfied that the match had been found he/she turned the cards over to reveal the student name.

The total incorrect matches for the group activities were as follows:

Activity 1

Three (3) incorrect matches

Activity 2

Two (2) teachers could not find matches because the cards were being held by teachers making incorrect matches in Activity 1

Two (2) teachers claimed one card (one of the two had made a correct match)

Ten (10) incorrect matches were identified when the cards were turned over to reveal the students' names

Of the two-hundred ninety-four (294) cases, two-hundred eighty-four (284) correct matches were made. Therefore, in 96+% of the cases the valuator's Ifd score could be correctly matched with the teachers' narrative.

A Test to Determine Whether Teachers' Stated Opinions Regarding the Seriousness of Specific Behavior are Accurately Addressed by the Ifd Scale

The forty-two (42) teachers who participated in the previously described activity met in seven (7) groups of six (6) participants.

Each participant selected two (2) of the seven (7) narratives to take to the group. The group assigned a level of seriousness from one (1) (very serious) to three (3) (not so serious) to each narrative. The groups then assigned a second level of seriousness within each level 1-3 by using a (most serious within the level to) ? (least serious within the level) and more than one narrative could be assigned to single level.

Behaviors which described destruction of property [except for three (3) narratives describing students tearing up their own work or breaking their own pencils] were consistently placed in level 2. There were nine (9) such behaviors described excluding the three (3) presented in brackets.

Into level 3 were assigned all other, fifty-seven (57), behaviors described. The first two of three seriousness levels were not addressed. This decision was made in the interest of time conservation and the consideration that previous teachers' opinions that the levels did not overlap had been supported by the participants assignment of level 1 and 2 behaviors. The level 3 were assigned values of a-? by the participants.

Ifd scores were assigned to all narratives in the previous test to determine the accuracy of Ifd scores. The fifty-seven (57) level 3 narratives were determined to have an Ifd score range of 16-21 or six (6) integers. When participants assigned letter values to the behaviors, they assigned letters a-e or five (5) letters to the behaviors.

Of the fifty-seven (57) behaviors, thirty-six (36) had intensity values of ten (10) and twenty-one (21) had intensity values of twelve (12).

When the matches were made, the following was found:

the letter a matched Ifd scores of 20 and 21
the letter b matched Ifd scores of 18, 19 and 20
the letter c matched Ifd scores of 17 and 18
the letter d matched Ifd scores of 17
the letter e matched Ifd scores of 16 and 17

A perfect match would have been:

a = 21 (Ifd)
b = 20
c = 19
d = 18
e = 17
f = 16

Four (4) behaviors of I^{10} were ranked alphabetically as high as the highest I^{12} behavior and no I^{10} behaviors were ranked lower than the lowest I^{12} behavior.

These findings offered a very close match with the opinions on which the scale was based. Also, no behaviors received Ifd scores as low or lower than 14 (transfer level).

Appendix B

WHO "TALKS" ABOUT BEHAVIOR - JUST B/EH TEACHERS?

HOW ABOUT?:

1. Parents
2. Regular educators
3. Administrators
4. Students
5. Reporters
6. Psychologists
7. Social workers
8. Writers
9. Musicians
10. Clergy
11. We
12. Spouses
13. Peers
14. Extended Family Members
15. Coaches & Athletes
16. Community Workers
17. Mental Health Case Managers
18. Historians
19. Siblings
20. Songwriters
21. Politicians
22. Special Educators
23. Medical Personnel

24. Researchers
25. Employers & Co-workers
26. Poets
27.
28.
29.
30.

Compiled by Jacob Cohen from interviews with special educators in North Carolina Region 2, September, 1986.

Appendix C

Where Do We Learn About Behavior?

1. Ourselves
2. Characters in books
3. Friends
4. T.V. characters
5. Sports figures
6. Parents
7. Siblings
8. Teachers
9. Principals
10. Coaches
11. Rock stars
12. Custodians
13. Baby sitters
14. Animals
15. Grandparents
16. Peers
17. Video games
18. Politicians
19. Religious leaders
20. Street people
21. Bathroom walls
22. Criminals
23. Professionals
24. Extended family
25. Probation officers
26. Guidance counselors
27. Neighbors
28. Spouses/significant others
29. Children
30. Law enforcers
31. Artists
32. Sporting officials
33. Activity leaders
34. Social workers
35. Other B/EH people
36. Supervisors
37. Lunchroom workers
38. Administrators
39. Aides
40.
41.
42.
43.
44.
45.
46.
47.
48.
49.
50.

Appendix D

NEW BEHAVIOR ____________________

INSTRUCTIONAL LEVEL ____________________

INSTRUCTIONAL OBJECTIVE ____________________

____

Teacher Behavior	Instructional Activities/Suggestions

The following information regarding commercially available materials was produced by:

Dr. Mary Lynne Calhoun
Department of Curriculum and Instruction
UNC-Charlotte
Charlotte, N.C. 28212

Appendix E

MLC
JB
12-86

COMMERCIALLY AVAILABLE MATERIALS FOR SOCIAL SKILLS TRAINING: TEACHING NEW BEHAVIORS

TITLE/ DESCRIPTION	ORDERING INFORMATION
A Secondary Curriculum Guide for Personal Adjustment by Cora Houchens This instructional guide was developed for a "personal growth" course for special education high school students, ages 15-25. Curriculum areas include identity, interpersonal relationships, and values. Resource lists and IEP goals are provided.	Mafex Associates, Inc. 90 Cherry Street, Box 519 Johnstown, PA 15907 $24.95
Project C.A.S.T. Career and Social Skills Training for Adolescents with Behavior Disorders Designed for secondary level behaviorally-disordered students, this program not only provides community-based career education but addresses the social skills necessary for appropriate behavior and interaction in a variety of settings. The C.A.S.T. program uses interactive video technology. Equipment necessary for its use includes a microcomputer system, videotape recorder, color monitor with interface system that integrates the above components.	Write to: Frank Darrah Project Director Area Education Agency 7 3712 Cedar Heights Drive Cedar Falls, Iowa 50613
Asset A Social Skills Program for Adolescents by J.B. Schumaker, J.A. Sherman, & J. Sheldon-Wildgen Developed at the University of Kansas, this data-based, empirically-tested program uses behavior modeling techniques to develop skills in giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, problem solving, negotiation, following instructions, and conversation. Materials include 8 films or videocassettes, program materials, and leader's guide. The target population is adolescents with behavior problems.	Research Press Box 317759 Champaign, IL 61820 $1400.

TITLE/DESCRIPTION	ORDERING INFORMATION
Skillstreaming the Adolescent by A.P. Goldstein, R.P. Sprafkin, N.J. Gershaw, & P. Klein Designed for use with aggressive, withdrawn, and immature adolescents, this book provides a guide to structured learning of social skills through modeling, role playing, performance, feedback, and transfer of training. Among the 50 social skills addressed are expressing feelings, maintaining a conversation, setting a goal, apologizing, responding to teasing, and standing up for oneself or a friend. An audiocassette program is available to prepare teachers or trainers to conduct the structured learning program.	Research Press Box 31773 Champaign, IL 61821 book $12.95 audiocassette program $33.95
Social Skills: Alternatives to Aggression The goal of this unit is to assist students in understanding and practicing pro-social skills as alternatives to aggressive behavior. Models include self-appraisal, relaxation, how to listen, communicating your wants to others, controlling your anger, responding to teasing, and negotiations. The target population is intermediate-junior high school students in a regular classrooom setting.	Hawaii State Dept. of Education Office of Instructional Services Honolulu, Hawaii ERIC Document Reproduction Service No. ED 235 457
Increasing School Competence by John Beattie & Mary Lynne Calhoun This data-based, field-tested curriculum guide was developed to help high school LD, EMH & BEH students meet the demands of high school more successfully. Curriculum areas are study skills, communication skills, and social skills. Among the social skills addressed are handling criticism, dealing with anger, dealing with teasing, and building friendships.	For information write: Dr. John Beattie Department of Curriculum & Instruction UNC-Charlotte Charlotte, NC 28212

TITLE/DESCRIPTION	ORDERING INFORMATION
Transition by Henry Dupont and Christine Dupont Designed for students in grades 6-9, this program is organized into five self-contained units: communication and problem-solving skills; encouraging openness and trust; verbal and non-verbal communication of feelings; needs, goals, and expectations; increasing awareness of values. Each unit contains a teacher's manual, audiocassette, duplicating masters, and script booklets.	American Guidance Service Publishers' Building Circle Pines, MN 55014 complete program $167.50
Life-Centered Career Education: A Competency Based Approach by Donn E. Brolin This curriculum as developed for use with mildly handicapped secondary students. Daily living skills, personal-social skills, and occupational skills--all supported by academic skills--are delineated. Personal- social skills include the following areas: achieving self - awareness, acquiring self-confidence, achieving socially responsible behavior, maintaining good interpersonal relationships, achieving problem-solving skills, and communicating adequately with others. Competency units include objectives and activities/strategies. Rating scales are provided.	Write to: The Council for Exceptional Children 1920 Association Drive Reston, VA 22091
Social Solutions This material is designed to support individual or group instruction in social skills for young adults, including the learning disabled, emotionally disturbed, and mildly mentally handicapped. Eleven areas are addressed: handling stress and conflict; taking responsiblity for actions and decisions communicating effectively; naming and expressing feelings; responding to suggestions and directions; developing close, caring relationships; contributing to groups; caring for yourself; touching in the right way; respecting the rights of others; showing honesty and fairness. Materials include a leader's manual, learning activity cards, videocassette vignettes, relaxation tape, roleplay tape, and introduction tape.	Professional Associate Resources 2917 Adeline Drive Burlingame, CA 94010 $200.

Teaching New Behavior:
Keys to Effectiveness

In personal hygiene classes, the teacher would not introduce a series of lessons on personal cleanliness by saying to the students "Some of the students in this classroom stink. I'm going to teach you to get clean and stay clean."

Behavior can be as touchy and as private an issue as personal hygiene. Special care should be taken not to introduce lessons in a way which would cause the student to withdraw from learning. Judgmental comments and teacher comments which focus upon a specific student's inappropriate behavior or serve to attack the student often causes the student to "shut down."

Some keys to effectiveness include the following:

1. Remember that individual student needs will dictate your curriculum in new behaviors.
2. Avoid using the New Behavior Guide to Curriculum Development as a curriculum guide. (It was never intended for that purpose.)
3. Remember that each level (awareness, understanding and application) must be addressed.
4. Management systems should not be withdrawn while teaching new behavior.
5. Expect change to be gradual and do not expect distinct behavioral change to occur prior to the application level.
6. Be creative in planning activities.
7. Teach behavior at a regularly scheduled time.
8. As appropriate, let others (principals, other teachers, guidance counselor, etc.) involved with the student know that the student is practicing alternatives.
9. Provide many opportunities for the use of alternative behaviors.
10. Provide regular and frequent feedback at the application level.
11. Individualize. (Ex. In group teaching do not hold a group of students back at awareness because others are not ready to go on to understanding.)
12. Risk using your own personal out-of-school experiences when examples of inappropriate behavior are needed.
13. Assure that the IEP goals are consistent with instruction.

When you are stuck for instructional strategies/activities at the awareness or understanding level -

- define terms.
- let the student define terms in his/her own words.
- describe personal out-of-school experiences.
- demonstrate inappropriate behaviors.
- let the student role play inappropriate behaviors.
- start stories and let the student finish them.
- let the student write stories.
- let the student illustrate behaviors.

- observe behaviors of television characters.
- use debates at the understanding level.
- use a television news report format for cause and effect.
- lecture as necessary (for 2 to 3 minutes focus on the subject, not on the particular student's behavior).

When you are stuck for activities to identify alternatives at the application level -

- use "cause-behavior" lists from awareness and understanding levels.
- consider self-talk when reasoning is required.
- consider relaxation strategies and bio-feedback when addressing anxiety, frustration, stress impulsivity, etc.
- consider systems to make the task more interesting when addressing off-task or inattentative behaviors. (Ex. Start with the last problem rather than the first or work all the problems with five's in them then three's and so on.)
- consider having the student tighten the same muscle groups used in inappropriate behavior when addressing behaviors which injure others or destroy property. (Ex. Press the tongue to the roof of the mouth if the inappropriate behavior is verbal outbursts. Curl the toes tightly if kicking is used. Press the thumb into the palm of the hand to prevent hitting.)

When you are stuck for activities to select alternatives at the application level -

- use teacher demonstrations and/or student demonstrations.
- let the student try a possible alternative for 1 hour, 1 day or 1 week.
- use a story and have the student select and role play an alternative.
- use an appropriate alternative identified by the student rather than by the teacher.

When you are stuck for activities to practice alternatives at the application level -

- consider using innoculation strategies in and out of the classroom.

  Note: Innoculation strategies are deliberate "set ups" known to the teacher and the student. The student is told that between 9:00 and 9:15 the teacher will try to cause the student to experience stress. The student will select an alternative to practice when the teacher makes his/her move.

- have the student use visible cues (touching an ear, propping a card, putting a hand in a pocket, etc.) to show he/she is consciously using alternatives.

- use games such as "freeze and switch."

Note: The student safely demonstrates inappropriate behavior until the teacher says "freeze." When the teacher says "switch" the student uses the alternative. Used as practice, this game lends itself to control of the situation if the student should forget to use an alternative in real classroom situation.